December 17, 2001

Mr. Matt Mabrey
Rogers Group, Inc.
P.O. Box 849
Bloomington, IN 47402

Re: **027-14825**
First Significant Permit Revision to
FESOP 027-7575-05023

Dear Mr. Mabrey:

Rogers Group, Inc. was issued a permit on August 4, 1997 for a portable hot drum-mix asphalt plant. A letter requesting changes to this permit was received on July 31, 2001. Pursuant to the provisions of 326 IAC 2-8-11.1 a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The changes to the portable asphalt plant permit include updating the emission calculations, limits, and conditions, drafting an alternative operating scenario that applies to the source when the portable and stationary plants are co-located, drafting a new reporting form for the new fuel use limit established for the alternative operating scenario, and a revising the table of contents to include changes proposed under this revision.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Scott Fulton, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0 and ask for Scott Fulton or extension (3-5691), or dial (317) 233-5691.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
SDF
cc: File - Daviess County
U.S. EPA, Region V
Daviess County Health Department
Air Compliance Section Inspector - Gene Kelso
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

Rogers Group, Incorporated (Portable Source)

(Herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments) and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: F 055-7575-05023	Date Issued: August 4, 1997

First Significant Permit Revision No.: 027-14825-05023	Affected Pages: 3, 16, 24, 25, 26, 27, and 32, with Pages 16a, 27a, 27b, and 28a - l added.
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: December 17, 2001

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SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]
The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(c) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity
Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

(a) Visible emissions shall not exceed an average of thirty percent (30%) opacity in twenty-four (24) consecutive readings,

(b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (60 readings) in a six (6) hour period.

(c) Unless otherwise stated in section D.

C.3 Open Burning
The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6.

C.4 Fugitive Dust Emissions
The Permittee shall be in violation of 326 IAC 6-4 if any of the criteria specified in 326 IAC 6-4-2 (1) through (4) are violated.

C.5 Fugitive Particulate Matter Emission Limitations

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on December 13, 1996. The plan consists of:

(a) Cleaning paved roads and parking lots by sweeping on an as needed basis (monthly minimum). Power brooming paved roads and parking lots while wet.

(b) Paving unpaved roads and parking lots with asphalt. Treating with emulsified asphalt as needed. Treating with water as needed. Double chip and seal the road surface and maintain on an as needed basis.

In order to reduce fugitive emissions, Rogers Group, Incorporated shall pave all unpaved roads at the source. Due to this condition, PSD (326 IAC 2-2) and Emission Offset (326 IAC 2-3) rules do not apply.

(c) Maintain minimum size and number of stock piles of aggregate. Treat around the stockpile with emulsified asphalt on an as needed basis. Treat around the stockpile with water as needed. Treat the stockpiles with water as needed.

SECTION D.1 FACILITY OPERATION CONDITIONS

One (1) aggregate dryer with a maximum capacity of 116 Million British thermal units per hour, exhausting through a baghouse at stack SV1, fired by #2 fuel oil and using natural gas as a backup fuel.
One (1) hot oil heater fired by #2 fuel oil, and rated at 1.2 Million British thermal units per hour.
One (1) baghouse with a total filter area of 10,523 square feet.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Sulfur Dioxide (SO_2) [326 IAC 7-1.1]

The aggregate dryer sulfur dioxide (SO2) emissions shall not exceed five-tenths (0.5) pound per million British thermal units when combusting No.1/No. 2 distillate oils.

D.1.2 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 , particulate matter emissions from the aggregate dryer/mixer shall not exceed 0.030 grains per dry standard cubic foot equivalent to 11.0 pounds per hour. Compliance with these limits will satisfy the New Source Performance Standards, 326 IAC 12 (40 CFR 60.90 to 60.93, Subpart I).

D.1.3 Opacity Limitations [326 IAC 5-1 and 326 IAC 12, 40 CFR 60.92]

Pursuant to New Source Performance Standards, 326 IAC 12 (40 CFR 60.90 to 60.93, Subpart I), visible emissions from the portable asphalt plant shall not exceed 20 percent opacity. Compliance with this limit will also satisfy 326 IAC 5-1.

D.1.4 Fuel Use Limit [326 IAC 2-8-4]

The owner or operator shall limit fuel use at the aggregate dryer as follows:

(a) The total equivalent No. 1/No. 2 fuel oil usage at the portable asphalt plant shall not exceed 2,713,521 gallons per consecutive twelve (12) month period.

For the purposes of Paragraph (a) of this Condition, the following conversions shall be used to determine the equivalent No. 1/No. 2 fuel oil use for natural gas:

Natural Gas: Cubic Feet Natural Gas * 0.007042254 = Gallons No. 1/No. 2 Fuel Oil

(b) When the portable asphalt plant is co-located with the stationary asphalt plant, the total monthly equivalent No. 1/No. 2 fuel oil usage at the portable asphalt plant shall not exceed the levels established in Condition D.3.10.

D.1.5 Use of Cutback / Emulsified Asphalts [326 IAC 2-8-4]

The owner or operator shall not process cutback/emulsified asphalt unless proper approval has been obtained from the Indiana Department of Environmental Management, Office of Air Quality.

D.1.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.7 Particulate Matter (PM) and PM10

In order to comply with the emission limitations of Conditions C.1, C.2, D.1.2, D.1.3, and D.1.4 the portable asphalt plant baghouse/cyclone system shall be in operation at all times when the portable asphalt plant is in operation.

D.1.8 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Conditions C.1, D.1.2, and D.1.4, the Permittee shall perform PM and PM-10 testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years or five (5) years after the most recent valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.1.9 Testing Requirements [326 IAC 12, 40 CFR 60.93(a) and (b)]

Pursuant to 40 CFR 60.93(a) and (b), the owner or operator shall determine compliance with the particulate matter (PM) and opacity limits of Conditions D.1.2 and D.1.3 by conducting performance tests as specified in 40 CFR 60, Section 60.8, utilizing the following test methods of Appendix A of Part 60:

(a) Method 5 to determine the particulate matter concentration, with the sampling time and sample volume for each run being at least 60 minutes and 31.8 dscf, respectively, and
(b) Method 9 and the procedures in 60.11 to determine opacity,

unless otherwise specified in 60.8.

D.1.10 Compliance Determination [326 IAC 326 IAC 7-2-1(e),(e)(2),(f); 326 IAC 3-7-4; 326 IAC 3-7-5(b)]

The owner or operator shall determine compliance with the limits of Condition D.1.1 by sampling and analyzing all distillate and fuel oils combusted at the portable plant asphalt plant and computing the sulfur dioxide (SO2) emission rates utilizing the applicable sampling and analysis data. Said sampling, analyses, and computations shall be performed as follows:

(a) Fuel Sampling and Analysis Methods:

To sample and analyze all fuel oils combusted at the portable asphalt plant, the owner or operator shall either:

(1) utilize the following prescribed methods:

(A) The fuel oil samples shall be collected utilizing one of the following methods:

(i) ASTM D4057-88*, “Standard Practice for Manual Sampling of Petroleum and Petroleum Products”, or
(ii) ASTM D4177-82*, “Standard Method for Automatic Sampling of Petroleum and Petroleum Products”;

(B) The sulfur content shall be determined utilizing one of the following methods:

(i) ASTM D129-95*, “Standard Test Method for Sulfur in Petroleum Products (General Bomb Method)”,

(ii) ASTM D1266-91*, "Standard Test Method for Sulfur in Petroleum Products (Lamp Method)",
(iii) ASTM D1552-95*, "Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method)", or
(iv) ASTM D2622-94*, "Standard Test Method for Sulfur in Petroleum Products (X-ray Spectrographic Method)"; and

(C) The heat content shall be determined utilizing ASTM D240-92*, "Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter".

* Copies of the American Society for Testing and Materials (ASTM) procedures referenced may be obtained from ASTM, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania, 19428, (610) 832-9585, and available for copying at the Indiana Department of Environmental Management, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, Indiana 46206-6015.

or

(2) utilize alternative sampling and analysis methods, provided the methods are determined, by the Office of Air Quality, to be acceptable equivalents to the methods specified in (a)(1) of this Condition.

or

(3) utilize sampling and analysis data supplied by the vendor, as obtained from tests performed on the fuel oils prior to delivery of the fuel oil, provided the tests performed on the fuel oils are determined to be acceptable equivalents to the methods specified in paragraph (a)(1) of this Condition.

(b) Sulfur Dioxide Emission Rates:

Computation of the calculated sulfur dioxide emissions rates to be used to demonstrate compliance with the limits of Condition D.1.1 shall be determined based on a calendar month average sulfur dioxide emission rate in pounds per million Btu, utilizing the applicable fuel sampling and analysis data from Paragraph (a) of this Condition, and the emission factors contained in U. S. EPA publication AP-42, "Compilation of Air Pollutant Emission Factors" (September 1988)**, unless other emission factors based on site specific sulfur dioxide measurements are approved by the Office of Air Quality and the U. S. EPA.

** Copies of the Code of Federal Regulations (CFR) and AP-42 referenced may be obtained from the Government Printing Office, Washington, D.C. 20402. Copies of pertinent sections are also available at the Indiana Department of Environmental management, Office of Air Quality, Indiana Government Center-North, 100 North Senate Avenue, Room 1001, P.O. Box 6015, Indianapolis, IN 46206-6015.

In order to determine compliance with requirements of this Condition and Condition D.1.1, the Office of Air Quality reserves the right to, at any time, perform a systems audit to determine compliance with the required fuel sampling and analysis procedures. However, prior to such an audit, the owner or operator who becomes subject to an audit shall be provided a copy of the required audit procedures.

Should the Office of Air Quality make a determination of noncompliance with the requirements of this Condition or the limits of Condition D.1.1, no other compliance determination methods specified in 326 IAC 7 shall be used by the owner or operator to refute the evidence of noncompliance.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.11 Compliance Monitoring [326 IAC 7-2-1(c)(3)]

To demonstrate compliance with the requirements of Conditions D.1.1 and D.1.4, the owner or operator shall, for all fuels combusted at the dryer burner during each calendar month:

(a) either:

(1) list the sampling and analysis methods used to comply with the requirements of Condition D.1.10(a)(1) and record the results of said tests,
(2) list the sampling and analysis methods used to comply with the requirements of Condition D.1.10(a)(2) and record the results of said tests, or
(3) if the owner or operator utilizes vendor sampling and analysis data as provided for in Condition D.1.10(a)(3):

(A) obtain a certifications from the fuel supplier containing, at a minimum, the following:

(i) the name of the oil supplier,
(ii) a statement from the oil supplier that certifies the tests completed by the vendor are equivalent to the methods specified in Condition D.1.10(a)(1) and the data supplied by the vendor is correct and accurate, and
(iii) an attachment containing the information necessary to determine the fuel properties required in Paragraph (b) of this Condition; and

(B) complete a certification, signed by the owner or operator, that states that the certifications and fuel sampling and analyses conducted, represent all of the fuel combusted during the period;

(b) record the following fuel oil properties, utilizing the applicable methods specified in Condition D.1.10:

(1) the calendar month average sulfur content of all No. 1 and No. 2 oils combusted in percent sulfur,
(2) the heat content of each fuel combusted in Btu/ gallons or Btu/cf, whichever is applicable,
(3) the sulfur dioxide emission rate in pounds per million Btu; and

(c) record on a monthly basis:

(1) the applicable month,
(2) the amount of No. 1/No. 2 fuel oil in gallons per month, and
(3) the amount of equivalent natural gas in gallons No.1/No.2 fuel oil per month,

combusted at portable asphalt plant aggregate dryer.

D.1.12 Daily and Weekly Visible Emissions Notations

(a) The owner or operator shall perform daily visible emissions observations consistent with a method approved by the OAQ to determine compliance with operation conditions C.2 and D.1.3.

(b) The owner or operator shall perform weekly visible emissions observations on the external baghouse unit, cyclone, scavenger system ductwork, and any associated components (e.g., hoppers, etc.), for evidence of fugitive emissions, holes, corrosion, audible leaks, and the like. This does not require the use of a certified visible emissions reader.

In the event that visible emissions are detected above the limit required by operation condition C.2 or D.1.3 are detected on the external baghouse/cyclone collection system and associated components, the Corrective Action Contingency Plan shall be implemented. Corrective action shall be taken within 8 hours of discovery. If the initial corrective action plan does not correct the problem, then additional corrective actions shall be devised within 8 hours of discovery and shall include a timetable for completion. The corrective actions shall be implemented immediately in accordance with those timetables.

D.1.13 Hourly Monitoring of Baghouse Operational Parameters

The owner or operator shall operate the baghouse/cyclone collection and scavenger capture systems at all times when the aggregate dryer is in operation, monitoring the following parameters on an hourly basis:

(a) Pressure drop (inlet/outlet differential static pressure) between the baghouse

The baghouse pressure drop shall be maintained within the following range of 3.0 to 4.0 inches of water.

If the unit is observed to be operating with a differential static pressure above the high end range or below the low end range for more than 2 hours of the production day, the trouble-shooting contingency plan and corrective action shall be taken within 8 hours of discovery in accordance with Rogers Group, Incorporated Corrective Action Contingency Plan. The company shall also document the cause of the out of range reading. Failure or partial failure of control devices shall be reported to IDEM according to the procedure specified for malfunctions in 326 IAC 1-6-2, in which case the provisions of 326 IAC 1-6-5 may apply at the discretion of IDEM.

(b) Inlet temperature to the baghouse

The inlet temperature to the baghouse shall be maintained within a range of 225 - 325 degrees Fahrenheit to prevent overheating of the bags and to prevent low temperatures from mudding up the bags.

In the event that the temperature is outside of the range, corrective action shall be taken within 8 hours. The operational parameters shall be monitored for indications of bag failure. The thermocouple at the inlet has a temperature switch which automatically shuts the burner off if the high end range is exceeded.

In the event that bag failure has occurred due to rupture, melting., etc., corrective action shall be taken. Dependent upon the severity of the excursion, corrective action shall not exceed 8 hours from the time of discovery. The baghouse shall shutdown for visual inspection within 24 hours and bags shall be replaced as needed.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.14 Record Keeping Requirements

The owner or operator shall keep:

(a) either:

(1) a copy of the sampling and analysis test results as specified in Condition D.1.11(a)(1),
(2) a copy of the sampling and analysis test results as specified in Condition D.1.11(a)(2), or
(3) if the owner or operator utilizes vendor sampling and analysis data as provided for in Condition D.1.10(a)(3), copies of the certifications required in Condition D.1.11(a)(3);

(b) records of the fuel oil properties required in Condition D.1.11(b);

(c) records of the amount of fuel combusted, as required in Condition D.1.11(c);

(d) records of all visible emission notations from the baghouse, cyclone, scavenger ductwork systems as required in Condition D.1.12; and

(e) records of all required baghouse/cyclone operational parameters while the portable asphalt plant is in operation, as required in Condition D.1.13.

All records required to be kept in this Condition shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.15 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using reporting form 1 located at the end of this permit, or their equivalent. Said quarterly report shall be submitted within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 FACILITY OPERATION CONDITIONS

One (1) 10,000 gallon liquid storage tank (MS4) for #2 fuel oil.
One (1) 30,000 gallon liquid storage tank (MS2) for liquid asphalt.

D.2.1 Storage tank (MS2) shall comply with the New Source Performance Standards (NSPS), 326 IAC 12 (40 CFR Part 60.116b only, Subpart Kb). 40 CFR Part 60.116b requires the permittee to maintain accessible records showing the dimension of each storage vessel and an analysis showing the capacity of the storage vessel. Records shall be kept for the life of the storage tanks.

SECTION D.3 ALTERNATIVE OPERATING SCENARIO

Facility Description [326 IAC 2-8-4(10)]:

(a) Stationary Asphalt Plant Affected Facilities:

(1) One (1) batch mixer, identified as AP2, capable of producing 120 tons of asphalt per hour, with emissions exhausted through a cyclone, identified as CE2 and scrubber (CE1), with emissions exiting through Stack SV1.
(2) One (1) 69.1 MMBtu/hr natural gas, No.1 or No. 2 fuel oil, No. 4 fuel oil, or re-refined oil fired aggregate dryer, identified as AP1, with emissions exhausted through cyclone CE2 and Scrubber CE1, with emissions exiting through Stack SV1.
(3) One (1) cyclone, identified as CE1, with a design air flow rate of 22,000 dscfm.
(4) One (1) Standard Steel scrubber, identified as CE1, with a design water flow rate of 200 gallons per minute.

(b) Portable Asphalt Plant Affected Facilities:

(1) One (1) drum hot-mix asphalt plant (AP1) capable of producing 350 tons per hour of asphalt and exhausting through a baghouse and exiting through stack SV1.
(2) One (1) 116 million British thermal units per hour fuel oil #2 fired aggregate dryer (C1) also exhausting through the baghouse, and using natural gas as a backup fuel when available.
(3) One (1) jet pulse baghouse (CE1) with a total filter area of 10,532 square feet.

Emission Limitations and Standards [326 IAC 2-8-4(1)]

Stationary Asphalt Plant (027-14746-03270):

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

The particulate matter emissions from the aggregate dryer/mixer of the stationary asphalt plant shall not exceed 50.5 pounds per hour equivalent to 0.268 grains per dry standard cubic foot, and particulate matter from the entire asphalt plant shall not exceed 53.1 pounds per hour. Therefore, 326 IAC 2-2 is not applicable.

D.3.2 Particulate Matter (PM) [326 IAC 12, 40 CFR 60.92]

Pursuant to 40 CFR 60, Section 60.92, on and after the date the performance test, required in Condition D.3.15 is completed, the owner or operator shall not discharge or cause to be discharged into the atmosphere, any gases from the asphalt plant which:

(a) contain particulate matter (PM) greater than 0.04 gr/dscf equivalent to 7.54 lb/hr, or

(b) exhibit opacity greater than or equal to 20%.

D.3.3 Sulfur Dioxide (SO2) [326 IAC 7-1.1]

The aggregate dryer burner SO2 emissions shall not exceed:

(a) five-tenths (0.5) pound per million British thermal units when combusting No. 1 and No. 2 distillate oils; or

(b) one and six-tenths (1.6) pounds per million British thermal units when combusting No. 4 fuel oil and re-refined oils .

D.3.4 Stationary Asphalt Plant Fuel Use Limit [326 IAC 2-8-4]

The total equivalent re-refined oil usage at the stationary batch mix asphalt plant shall not exceed 121,088 gallons per month during any month the portable asphalt plant is co-located with the stationary asphalt plant.

For the purposes of this Condition, the following conversions shall be used to determine the equivalent re-refined oil use for the following alternative fuels:

(a) Natural Gas:	CuFt Natural Gas	*	0.007042254	=	Gallons Re-refined Oil
(b) No. 1/ No. 2 Fuel Oil:	Gal No. 1/ No. 2 Oil	*	0.971831542	=	Gallons Re-refined Oil
(c) No. 4 Fuel Oil:	Gal No. 4 Fuel Oil	*	1.028169722	=	Gallons Re-refined Oil

D.3.5 Use of Cutback / Emulsified Asphalts [326 IAC 2-8-4]

The amount of binder used to produce cold mix (cutback) asphalt at the stationary plant shall be limited to 691 tons per year, based on a 12 rolling total, with the grade of cold mix (cutback) asphalt being either slow or medium cure only.

For the purposes of this condition, binder is defined as the sum of the oil distillate (solvent) and asphalt cement used when producing cold mix (cutback) asphalt.

D.3.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Portable Asphalt Plant (025-7575–05023, issued August 4, 1997):

D.3.7 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 , particulate matter emissions from the aggregate dryer/mixer shall not exceed 0.030 grains per dry standard cubic foot equivalent to 11.0 pounds per hour. Compliance with these limits will satisfy the New Source Performance Standards, 326 IAC 12 (40 CFR 60.90 to 60.93, Subpart I).

D.3.8 Opacity Limitations [326 IAC 5-1 and 326 IAC 12, 40 CFR 60.92]

Pursuant to New Source Performance Standards, 326 IAC 12 (40 CFR 60.90 to 60.93, Subpart I), visible emissions from the portable asphalt plant shall not exceed 20 percent opacity. Compliance with this limit will also satisfy 326 IAC 5-1.

D.3.9 Sulfur Dioxide (SO2) [326 IAC 7-1.1]

The aggregate dryer sulfur dioxide (SO2) emissions shall not exceed five-tenths (0.5) pound per million British thermal units when combusting No. 1 and No. 2 distillate oils.

D.3.10 Portable Asphalt Plant Fuel Use Limit [326 IAC 2-8-4]

The total equivalent combined No. 1/No. 2 fuel oil usage at the portable plant shall not exceed 98,192 gallons per month when the portable asphalt plant is co-located with the stationary asphalt plant.

For the purposes of this Condition, the following conversion shall be used to determine the equivalent No. 1/No.2 fuel oil use for natural gas:

CuFt Natural Gas * 0.007042254 = No. 1/No. 2 Fuel Oil

D.3.11 Use of Cutback / Emulsified Asphalts [326 IAC 2-8-4]

The owner or operator shall not process cutback/emulsified asphalt unless proper approval has been obtained from the Indiana Department of Environmental Management, Office of Air Quality.

D.3.12 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

Stationary Asphalt Plant (027-14746-03270):

D.3.13 Particulate Matter (PM) and PM10

In order to comply with the emission limitations of Conditions C.1, C.2, D.3.1, D.3.2, and D.3.4, cyclone CE2 and scrubber CE1 shall be in operation at all times when batch mixer AP2 and aggregate dryer AP1 are in operation.

D.3.14 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Conditions C.1, D.3.1, and D.3.4, the Permittee shall perform PM and PM-10 testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years or five (5) years after the most recent valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.3.15 Testing Requirements [326 IAC 12, 40 CFR 60.93(a) and (b)]

Pursuant to 40 CFR 60.93(a) and (b), the owner or operator shall determine compliance with the particulate matter (PM) and opacity limits of Condition D.3.2 by conducting performance tests as specified in 40 CFR 60, Section 60.8, utilizing the following test methods of Appendix A of Part 60:

(a) Method 5 to determine the particulate matter concentration, with the sampling time and sample volume for each run being at least 60 minutes and 31.8 dscf, respectively, and

(b) Method 9 and the procedures in 60.11 to determine opacity,

unless otherwise specified in 60.8.

D.3.16 Compliance Determination [326 IAC 326 IAC 7-2-1(e),(e)(2),(f); 326 IAC 3-7-4; 326 IAC 3-7-5(b)]

The owner or operator shall determine compliance with the limits of Condition D.3.3 by sampling and analyzing all distillate and fuel oils combusted at the stationary plant and computing the sulfur dioxide (SO2) emission rates utilizing the applicable sampling and analysis data. Said sampling, analyses, and computations shall be performed as follows:

(a) Fuel Sampling and Analysis Methods:

To sample and analyze all fuel oils combusted at the stationary asphalt plant, the owner or operator shall either:

(1) utilize the following prescribed methods:

(A) The fuel oil samples shall be collected utilizing one of the following methods:

(i) ASTM D4057-88*, "Standard Practice for Manual Sampling of Petroleum and Petroleum Products", or
(ii) ASTM D4177-82*, "Standard Method for Automatic Sampling of Petroleum and Petroleum Products";

(B) The sulfur content shall be determined utilizing one of the following methods:

(i) ASTM D129-95*, "Standard Test Method for Sulfur in Petroleum Products (General Bomb Method)",
(ii) ASTM D1266-91*, "Standard Test Method for Sulfur in Petroleum Products (Lamp Method)",
(iii) ASTM D1552-95*, "Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method)", or
(iv) ASTM D2622-94*, "Standard Test Method for Sulfur in Petroleum Products (X-ray Spectrographic Method)"; and

(C) The heat content shall be determined utilizing ASTM D240-92*, "Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter".

* Copies of the American Society for Testing and Materials (ASTM) procedures referenced may be obtained from ASTM, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania, 19428, (610) 832-9585, and are available for copying at the Indiana Department of Environmental Management, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, Indiana 46206-6015.

or

(2) utilize alternative sampling and analysis methods, provided the methods are determined, by the Office of Air Quality, to be acceptable equivalents to the methods specified in (a)(1) of this Condition.

or

(3) utilize sampling and analysis data supplied by the vendor, as obtained from tests performed on the fuel oils prior to delivery of the fuel oil, provided the tests performed on the fuel oils are determined to be acceptable equivalents to the methods specified in paragraph (a)(1) of this Condition.

(b) Sulfur Dioxide Emission Rates:

Computation of the calculated sulfur dioxide emissions rates to be used to demonstrate compliance with the limits of Condition D.3.3 shall be determined based on a calendar month average sulfur dioxide emission rate in pounds per million Btu, utilizing the applicable fuel sampling and analysis data collected and the emission factors contained in U. S. EPA publication AP-42, "Compilation of Air Pollutant Emission Factors" (September 1988)**, unless other emission factors based on site specific sulfur dioxide measurements are approved by the Office of Air Quality and the U. S. EPA.

** Copies of the Code of Federal Regulations (CFR) and AP-42 referenced may be obtained from the Government Printing Office, Washington, D.C. 20402. Copies of pertinent sections are also available at the Indiana Department of Environmental management, Office of Air Quality, Indiana Government Center-North, 100 North Senate Avenue, Room 1001, P.O. Box 6015, Indianapolis, IN 46206-6015.

In order to determine compliance with requirements of this Condition and Condition D.3.3, the Office of Air Quality reserves the right to, at any time, perform a systems audit to determine compliance with the required fuel sampling and analysis procedures. However, prior to such an audit, the owner or operator who becomes subject to an audit shall be provided a copy of the required audit procedures.

Should the Office of Air Quality make a determination of noncompliance with the requirements of this Condition or the limits of Condition D.3.3, no other compliance determination methods specified in 326 IAC 7 shall be used by the owner or operator to refute the evidence of noncompliance.

Portable Asphalt Plant (025-7575–05023, issued August 4, 1997):

D.3.17 Particulate Matter (PM) and PM10

In order to comply with the emission limitations of Conditions C.1, C.2, D.3.7, D.3.8, and D.3.10, the portable asphalt plant baghouse/cyclone system shall be in operation at all times when the portable asphalt plant aggregate dryer is in operation.

D.3.18 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Conditions C.1, D.3.7 and D.3.10, the owner or operator shall perform PM and PM-10 testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years or five (5) years after the most recent valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.3.19 Testing Requirements [326 IAC 12, 40 CFR 60.93(a) and (b)]

Pursuant to 40 CFR 60.93(a) and (b), the owner or operator shall determine compliance with the particulate matter (PM) and opacity limits of Conditions D.3.7 and D.3.8 by conducting performance tests as specified in 40 CFR 60, Section 60.8, utilizing the following test methods of Appendix A of Part 60:

(a) Method 5 to determine the particulate matter concentration, with the sampling time and sample volume for each run being at least 60 minutes and 31.8 dscf, respectively, and
(b) Method 9 and the procedures in 60.11 to determine opacity,

unless otherwise specified in 60.8.

D.3.20 Compliance Determination [326 IAC 326 IAC 7-2-1(e),(e)(2),(f); 326 IAC 3-7-4; 326 IAC 3-7-5(b)]

The owner or operator shall determine compliance with the limits of Condition D.3.9 by sampling and analyzing all distillate and fuel oils combusted at the portable plant and computing the sulfur dioxide (SO2) emission rates utilizing the applicable sampling and analysis data. Said sampling, analyses, and computations shall be performed as follows:

(a) Fuel Sampling and Analysis Methods:

To sample and analyze all fuel oils combusted at the portable asphalt plant, the owner or operator shall either:

(1) utilize the following prescribed methods:

(A) The fuel oil samples shall be collected utilizing one of the following methods:

(i) ASTM D4057-88*, "Standard Practice for Manual Sampling of Petroleum and Petroleum Products", or
(ii) ASTM D4177-82*, "Standard Method for Automatic Sampling of Petroleum and Petroleum Products";

(B) The sulfur content shall be determined utilizing one of the following methods:

(i) ASTM D129-95*, "Standard Test Method for Sulfur in Petroleum Products (General Bomb Method)",
(ii) ASTM D1266-91*, "Standard Test Method for Sulfur in Petroleum Products (Lamp Method)",
(iii) ASTM D1552-95*, "Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method)", or
(iv) ASTM D2622-94*, "Standard Test Method for Sulfur in Petroleum Products (X-ray Spectrographic Method)"; and

(C) The heat content shall be determined utilizing ASTM D240-92*, "Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter".

* Copies of the American Society for Testing and Materials (ASTM) procedures referenced may be obtained from ASTM, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania, 19428, (610) 832-9585, and are available for copying at the Indiana Department of Environmental Management, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, Indiana 46206-6015.

or

(2) utilize alternative sampling and analysis methods, provided the methods are determined, by the Office of Air Quality, to be acceptable equivalents to the methods specified in (a)(1) of this Condition.

or

(3) utilize sampling and analysis data supplied by the vendor, as obtained from tests performed on the fuel oils prior to delivery of the fuel oil, provided the tests performed on the fuel oils are determined to be acceptable equivalents to the methods specified in paragraph (a)(1) of this Condition.

(b) Sulfur Dioxide Emission Rates:

Computation of the calculated sulfur dioxide emissions rates to be used to demonstrate compliance with the limits of Condition D.3.9 shall be determined based on a calendar month average sulfur dioxide emission rate in pounds per million Btu, utilizing the applicable fuel sampling and analysis data, and the emission factors contained in U. S. EPA publication AP-42, "Compilation of Air Pollutant Emission Factors" (September 1988)**, unless other emission factors based on site specific sulfur dioxide measurements are approved by the Office of Air Quality and the U. S. EPA.

** Copies of the Code of Federal Regulations (CFR) and AP-42 referenced may be obtained from the Government Printing Office, Washington, D.C. 20402. Copies of pertinent sections are also available at the Indiana Department of Environmental management, Office of Air Quality, Indiana Government Center-North, 100 North Senate Avenue, Room 1001, P.O. Box 6015, Indianapolis, IN 46206-6015.

In order to determine compliance with requirements of this Condition and Condition D.3.9, the Office of Air Quality reserves the right to, at any time, perform a systems audit to determine compliance with the required fuel sampling and analysis procedures. However, prior to such an audit, the owner or operator who becomes subject to an audit shall be provided a copy of the required audit procedures.

Should the Office of Air Quality make a determination of noncompliance with the requirements of this Condition or the limits of Condition D.3.9, no other compliance determination methods specified in 326 IAC 7 shall be used by the owner or operator to refute the evidence of noncompliance.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

Stationary Asphalt Plant (027-14746-03270):

D.3.21 Compliance Monitoring [326 IAC 7-2-1(c)(3)]

To demonstrate compliance with the requirements of Conditions D.3.3 and D.3.4, the owner or operator shall, for all fuels combusted at the dryer burner during each calendar month:

(a) either:

(1) list the sampling and analysis methods used to comply with the requirements of Condition D.3.16(a)(1) and record the results of said tests,
(2) list the sampling and analysis methods used to comply with the requirements of Condition D.3.16(a)(2) and record the results of said tests, or
(3) if the owner or operator utilizes vendor sampling and analysis data as provided for in Condition D.3.16(a)(3):

(A) obtain a certifications from the fuel supplier containing, at a minimum, the following:

(i) the name of the oil supplier,
(ii) a statement from the oil supplier that certifies the tests completed by the vendor are equivalent to the methods specified in Condition D.3.16(a)(1) and the data supplied by the vendor is correct and accurate, and
(iii) an attachment containing the information necessary to determine the fuel properties required in Paragraph (b) of this Condition; and

(B) complete a certification, signed by the owner or operator, that states that the certifications and fuel sampling and analyses conducted, represent all of the fuel combusted during the period;

(b) record the following fuel oil properties, utilizing the applicable methods specified in Condition D.3.16:

(1) the calendar month average sulfur content of all No. 1 and No. 2 oils combusted in percent sulfur,
(2) the calendar month average sulfur content of all No. 4 and re-refined oils combusted in percent sulfur,
(3) the heat content of each fuel combusted in Btu/ gallons or Btu/cf, whichever is applicable,
(4) the sulfur dioxide emission rate in pounds per million Btu; and

(c) record on a monthly basis:

(1) the applicable month,
(2) the amount of re-refined oil in gallons per month,
(3) the amount of equivalent natural gas in gallons of re-refined oil per month,
(4) the amount of equivalent No. 1/No. 2 fuel oils in gallons of re-refined oil per month, and
(5) the amount of equivalent No. 4 fuel oil in gallons of re-refined oil per month,

combusted at aggregate dryer.

D.3.22 Compliance Monitoring, Cutback Asphalt Limit

To demonstrate compliance with the requirements of Condition D.3.5, the owner or operator shall on a monthly basis, record:

(a) the grade(s) of asphalt produced (slow, medium, and/or rapid), and
(b) the total amount of input cold mix (cutback) asphalt binder.

D.3.23 Daily and Weekly Visible Emissions Notations

The owner or operator shall perform visible emissions observations as follows:

(a) The owner or operator shall perform daily visible emissions observations per a method approved by the OAQ to determine compliance with operation conditions C.2 and D.3.2.

(b) The owner or operator shall also perform weekly visible emissions observations on the cyclone, scrubber, scavenger system ductwork and associated components (e.g., hoppers, etc.) for evidence of fugitive emissions, holes, corrosion, audible leaks, and the like. This does not require the use of a certified visible emissions reader.

In the event that visible emissions are detected above the limits required by operation conditions C.2 or D.3.2 are detected on the external cyclone and scrubber components, the Corrective Action Contingency Plan shall be implemented. Corrective action shall be taken within 8 hours of discovery. If the initial corrective action plan does not correct the problem, then additional corrective actions shall be devised within 8 hours of discovery and shall include a timetable for completion. The corrective actions shall be implemented immediately in accordance with those timetables.

D.3.24 Pressure and Water Flow Readings

(a) The owner or operator shall collect pressure and scrubbing liquid (water) flow rate readings from the scrubber controlling the aggregate drying operation every four hours while the dryer is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the scrubber shall be maintained within the range of 7.0 and 10.0 inches of water and the flow rate for scrubbing liquid shall be maintained at approximately 200 gallons of water per minute or a range and flow rate established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading or scrubbing water flow rate is outside of the above mentioned range for any one reading.

(b) The instrument used for determining the pressure shall comply with Condition C.14 - Pressure Gauge Specifications, be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Portable Asphalt Plant (025-7575–05023, issued August 4, 1997):

D.3.25 Compliance Monitoring [326 IAC 7-2-1(c)(3)]

To demonstrate compliance with the requirements of Conditions D.3.9 and D.3.10, the owner or operator shall, for all fuels combusted at the dryer burner during each calendar month:

(a) either:

(1) list the sampling and analysis methods used to comply with the requirements of Condition D.3.20(a)(1) and record the results of said tests,
(2) list the sampling and analysis methods used to comply with the requirements of Condition D.3.20(a)(2) and record the results of said tests, or
(3) if the owner or operator utilizes vendor sampling and analysis data as provided for in Condition D.3.20(a)(3):

(A) obtain a certifications from the fuel supplier containing, at a minimum, the following:

(i) the name of the oil supplier,
(ii) a statement from the oil supplier that certifies the tests completed by the vendor are equivalent to the methods specified in Condition D.3.20(a)(1) and the data supplied by the vendor is correct and accurate, and
(iii) an attachment containing the information necessary to determine the fuel properties required in Paragraph (b) of this Condition; and

(B) complete a certification, signed by the owner or operator, that states that the certifications and fuel sampling and analyses conducted, represent all of the fuel combusted during the period;

(b) record the following fuel oil properties, utilizing the applicable methods specified in Condition D.3.20:

(1) the calendar month average sulfur content of all No. 1 and No. 2 oils combusted in percent sulfur,
(2) the heat content of each fuel combusted in Btu/ gallons or Btu/cf, whichever is applicable,
(3) the sulfur dioxide emission rate in pounds per million Btu; and

(c) record on a monthly basis:

(1) the applicable month,
(2) the amount of No. 1/No. 2 fuel oil in gallons per month, and
(3) the amount of equivalent natural gas in gallons No.1/No.2 fuel oil per month,

combusted at portable asphalt plant aggregate dryer.

D.3.26 Daily and Weekly Visible Emissions Notations

(a) That the Permittee shall perform daily visible emissions observations consistent with a method approved by the OAQ to determine compliance with operation conditions C.2 and D.3.8.

(b) That the Permittee shall perform weekly visible emissions observations on the external baghouse unit, cyclone, scavenger system ductwork and associated component (e.g., hoppers, etc.) for evidence of fugitive emissions, holes, corrosion, audible leaks, and the like. This does not require the use of a certified visible emissions reader.

In the event that visible emissions are detected above the limit required by operation conditions C.2 and D.3.8 are detected on the external baghouse components, the Corrective Action Contingency Plan shall be implemented. Corrective action shall be taken within 8 hours of discovery. If the initial corrective action plan does not correct the problem, then additional corrective actions shall be devised within 8 hours of discovery and shall include a timetable for completion. The corrective actions shall be implemented immediately in accordance with those timetables.

D.3.27 Hourly Monitoring of Baghouse Operational Parameters

The owner or operator shall operate the baghouse/cyclone collection and scavenger capture systems at all times when the aggregate dryer is in operation, and monitor the monitor the following parameters on an hourly basis:

(a) Pressure drop (inlet/outlet differential static pressure) between the baghouse

The baghouse pressure drop shall be maintained within the following range of 3.0 to 4.0 inches of water.

If the unit is observed to be operating with a differential static pressure above the high end range or below the low end range for more than 2 hours of the production day, the trouble-shooting contingency plan and corrective action shall be taken within 8 hours of discovery in accordance with Rogers Group, Incorporated Corrective Action Contingency Plan. The company shall also document the cause of the out of range reading. Failure or partial failure of control devices shall be reported to IDEM according to the procedure specified for mal-functions in 326 IAC 1-6-2, in which case the provisions of 326 IAC 1-6-5 may apply at the discretion of IDEM.

(b) Inlet temperature to the baghouse:

The inlet temperature to the baghouse shall be maintained within a range of 225 - 325 degrees Fahrenheit to prevent overheating of the bags and to prevent low temperatures from mudding up the bags.

In the event that the temperature is outside of the range, corrective action shall be taken within 8 hours. The operational parameters shall be monitored for indications of bag failure. The thermocouple at the inlet has a temperature switch which automatically shuts the burner off if the high end range is exceeded.

In the event that bag failure has occurred due to rupture, melting., etc., corrective action shall be taken. Dependent upon the severity of the excursion, corrective action shall not exceed 8 hours from the time of discovery. The baghouse shall shutdown for visual inspection within 24 hours and bags shall be replaced as needed.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

Stationary Asphalt Plant (027-14746-03270):

D.3.28 Record Keeping Requirements

The owner or operator shall keep:

(a) either:

(1) a copy of the sampling and analysis test results as specified in Condition D.3.21(a)(1),
(2) a copy of the sampling and analysis test results as specified in Condition D.3.21(a)(2), or
(3) if the owner or operator utilizes vendor sampling and analysis data as provided for in Condition D.3.16(a)(3), copies of the certifications required in Condition D.3.21(a)(3);

(b) records of the fuel oil properties required in Condition D.3.21(b);

(c) records of the amount of fuel combusted, as required in Condition D.3.21(c);

(d) records of the grade(s) of cold mix (cutback) asphalt used and total amount of cold mix (cutback) asphalt binder used, as required in Condition D.3.22;

(e) records of all visible emission notations from the scrubber/cyclone system as required in Condition D.3.23; and

(f) records of all required pressures and water flow rate recordings from the scrubber/cyclone system while the stationary asphalt plant is in operation, as required in Condition D.3.24.

All records required to be kept in this Condition shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.29 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.3.4, and D.3.5 shall be submitted to the address listed in Section C - General Reporting Requirements, of the stationary plant permit, using reporting forms 1and 2, respectively, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

Portable Asphalt Plant (025-7575–05023, issued August 4, 1997):

D.3.30 Record Keeping Requirements

The owner or operator shall keep:

(a) either:

(1) a copy of the sampling and analysis test results as specified in Condition D.3.25(a)(1),
(2) a copy of the sampling and analysis test results as specified in Condition D.3.25(a)(2), or
(3) if the owner or operator utilizes vendor sampling and analysis data as provided for in Condition D.3.20(a)(3), copies of the certifications required in Condition D.3.25(a)(3);

(b) records of the fuel oil properties required in Condition D.3.25(b);

(c) records of the amount of fuel combusted, as required in Condition D.3.25(c);

(d) records of all visible emission notations from the baghouse, cyclone, scavenger ductwork system as required in Condition D.3.26; and

(e) records of all required baghouse/cyclone operational parameters while the portable asphalt plant is in operation, as required in Condition D.3.27.

All records required to be kept in this Condition shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.31 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.4 and D.3.10 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using reporting form 1 located at the end of this permit, or their equivalent. Said quarterly report shall be submitted within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Quarterly Report Form; Portable Asphalt Plant Monthly and Annual Limits
Form 1

Source Name: Rogers Group, Inc.
Source Address: 412 Clark Road, Washington, Indiana 47501
Stationary Plant FESOP: 027-14825-05023
Facility: Aggregate Dryer Burner

YEAR: _____

Stationary Plant Limits:

Annual Limit: 2,713,521 gallons equivalent No. 1/No. 2 fuel oil per consecutive twelve (12) month period.
Monthly Limit: 98,192 gallons equivalent No. 1/No. 2 fuel oil per month when portable plant is co-located with the stationary plant.

Report:

Month	Portable and Stationary Plants Co-located? (Y/N)	(1) No. 1 and No. 2 Fuel Oil Combusted (gallons)	(2) Equivalent Natural Gas Combusted* (gallons)	[(1) + (2)] Total Fuel Oil Combusted This Month (gallons)

Equations for Determining Equivalent Use:

* Cubic Feet Natural Gas * 0.007042254 = Gallons No. 1/No. 2 Fuel Oil

9 No deviation occurred in this quarter.
9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP)

Source Background and Description

Source Name:	Rogers Group, Inc.
Source Location:	412 Clark Road, Washington, Indiana 47501
County:	Daviess
SIC Code:	2951
Operation Permit No.:	F 027-7575-05023
Operation Permit Issuance Date:	August 4, 1997
Significant Permit Revision No.:	F 027-14825-05023
Permit Reviewer:	SDF

The Office of Air Quality (OAQ) has reviewed a Significant Permit Revision application from Rogers Group, Inc. relating to the co-location of this portable asphalt plant with the recently proposed stationary batch mix asphalt plant under FESOP (027-14746-03270).

Background

On June 12, 2001, Rogers Group, Inc. submitted an application to co-locate existing portable asphalt plant (F 055-7575-05023, issued on August 4, 1997) at the site of existing stationary asphalt plant (F 027-7578-03270, issued on July 1, 1997). The stationary source is located at 412 Clark Road, in Washington, Indiana 47501.

Relocating the portable asphalt plant at the site of the stationary plant required an alternative operating scenario be drafted for both asphalt plants. Incorporating the alternative operating scenarios into the respective permits required a significant permit revision to each plant's FESOP.

During the review process, Rogers Group, Inc. determined that the amount of time required to obtain the significant permit revisions was too great and that the source could not wait for the co-location permitting process to be completed. After discussing the matter with the Office of Air Quality, Rogers Group, Inc. submitted a letter requesting that the stationary plant FESOP (F 027-7578-03270, issued on July 1, 1997) be revoked, and continued with the permitting processes involved with allowing the relocation and the operation of the portable plant to the site of the stationary source.

As a result of the revocation, the smaller stationary plant was shut down and the larger portable plant granted a relocation approval letter which resulted in the portable source moving to the site of the existing stationary source where the portable plant is currently operating under its approved FESOP.

On July 31, 2001, Rogers Group. Inc. submitted an application to re-permit the stationary source (027-14746-03270). Re-permitting the proposed source, requires a new FESOP be drafted for the plant. The source shall be considered a "new" source with a new permit number being assigned.

The plant ID, however, will still be the stationary source's previous DOT ID number (03270). The proposed FESOP shall contain the new source provisions and an alternative operating scenario that allows the source proposed under the FESOP to be co-located and co-operated with the existing portable plant.

In addition to the requirements of the proposed stationary plant, changes also need to be made to the existing portable plant FESOP.

The changes to the portable plant FESOP include re-evaluating and updating the emission calculations utilizing the most current emission factors, establishing a new "source" fuel use limit, and establishing a new alternative operating scenario fuel use limit that combined with the limitations of the proposed stationary plant, maintain the combined emission levels of all applicable pollutants at FESOP levels. The new source fuel use and alternative operating scenario limits shall be incorporated into the portable plant FESOP via this significant permit revision pursuant to 326 IAC 2-8-15(d) which states an owner or operator of a FESOP source may request that a valid FESOP permit be revised to include an alternative operating scenario in accordance with the significant permit revision requirements under 326 IAC 2-8-11.1(f).

The alternative operating scenario proposed for this portable plant shall be the same as the alternative operating scenario of the proposed stationary asphalt plant.

Both the new proposed FESOP and significant permit revision shall require a 30 day public comment period. To satisfy the public notification requirements of both the proposed FESOP and significant permit revision, one public notice shall be drafted with both proposals undergoing public notice at the same time. Simultaneous public noticing is required because both the new proposed permit and significant permit revision are dependent upon each other and they pertain to the same source site.

Rogers Group, Inc. has also submitted a FESOP renewal application for this portable plant (027-14791-05023). Since the changes associated with the portable plant under this significant permit revision (027-14825-05023) need to be incorporated into the renewed FESOP permit, the proposed renewal application shall be put on hold (prior to public notification) until the significant permit revision has been issued. Upon issuance, the changes associated with the significant permit revision shall be incorporated into the proposed portable plant renewal ensuring that the renewal reflects the most current standards and requirements.

Proposed Stationary Asphalt Plant Co-location Determination:

Based on the allowable SO2 rate of 99 tons/yr, the estimated fuel use limit for the stationary plant when operating alone is determined to be 2,639,733 gallons of equivalent re-refined oil per year. After application of this limit, only the VOC emissions exceed the Part 70 thresholds.

Based on the allowable VOC emission rate of 99 tons per year, the amount of cutback asphalt binder (oil distillates (solvents) + asphalt cement) from the stationary plant is limited to 691 tons per year when the stationary plant is operating alone and when the stationary and portable plants are operating at the same time, and the grade of cutback asphalt allowed is limited to slow or medium cure production. The portable plant will not produce any cutback asphalt. After application of this limit, no applicable pollutant emissions exceed their respective Part 70 thresholds. Thus, 326 IAC 2-7 will not apply in this case.

Based on the stationary plant alternative operating scenario allowable SO2 emission rate of 54.5 tons/yr, the adjusted portable plant fuel use limit under the alternative operating scenario is determined to be 1,453,066 gallons of equivalent re-refined fuel oil per year. Since the portable plant can relocate at any time, this annual limit is reduced to a straight monthly limit of 121,088 equivalent gallons of re-refined oil per month.

Complying with this adjusted proposed fuel use limit, complying with the cutback asphalt binder usage limit, complying with the other requirements of the stationary plant FESOP (including the new alternative operating scenario), and complying with the requirements of the portable plant FESOP and its alternative operating scenario, result in combined source emissions less than their respective Part 70 major source levels. Thus, 326 IAC 2-7 will not apply in this case.

Portable Asphalt Plant Determination:

Based on the allowable SO2 rate of 99 tons/yr, the re-estimated fuel use limit for the portable plant when operating alone is determined to be 2,713,521 gallons of equivalent No. 1/No. 2 fuel oil per year. After application of this limit, no source pollutant emissions exceed their respective Part 70 thresholds. Thus, 326 IAC 2-7 will not apply in this case.

Based on the portable plant alternative operating scenario allowable SO2 emission rate of 44.5 tons/yr, the adjusted portable plant fuel use limit under the alternative operating scenario is determined to be 1,178,309 gallons of equivalent No. 1/No. 2 fuel oil per year. Since the portable plant can relocate at any time, this annual limit is reduced to a straight monthly limit of 98,192 equivalent gallons of No. 1/No. 2 fuel oil per month.

Complying with this adjusted proposed fuel use limit, complying with the other requirements of the portable plant FESOP (including the new alternative operating scenario), and complying with the requirements of the proposed stationary plant FESOP and its alternative operating scenario, result in combined source emissions less than their respective Part 70 major source levels. Thus, 326 IAC 2-7 will not apply in this case.

Existing Approvals

This portable asphalt plant was issued FESOP (055-7575-05023) on August 4, 1997. The source has, in addition to this proposed significant permit revision, submitted an application for renewal of the portable plant, FESOP (027-14791-05023).

The changes associated with this portable plant significant permit revision shall be incorporated into the renewed FESOP permit, making the renewed FESOP, the most current version of the permit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that this Significant Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application.

Emission Calculations

UNRESTRICTED POTENTIAL TO EMIT, PORTABLE PLANT ALONE:

The following is a summary of the source unrestricted potential to emit (UPTE). The detailed calculations follow the summary.

	PM tons/yr	PM10 tons/yr	SO2 tons/yr	NOx tons/yr	VOC tons/yr	CO tons/yr
Dryer Combustion	7.26	6.96	257.67	86.37	1.42	18.15
Heater	0.08	0.04	2.67	0.75	0.01	0.19
Aggregate Dryer	29127.00	6745.20	-	-	-	-
Conveying/Handling	21.80	2.18	-	-	-	-
Screening	45.90	4.59	-	-	-	-
Unpaved Roads	6.20	2.20	-	-	-	-
Storage	0.02	0.01	-	-	-	-
Storage Tanks	-	-	-	-	neg.	-
Total	**29208.26**	**6761.18**	**260.34**	**87.12**	**1.43**	**18.34**

1. Dryer Combustion Emissions:

The fuels to be combusted by the dryer burner are natural gas and No. 1/No. 2 fuel oil. The following calculations determine the worst case UPTE due to the combustion of these fuels.

Natural Gas Combustion:

The following calculations determine the dryer combustion unrestricted potential to emit (UPTE) based on natural gas combustion, a maximum capacity of 116 MMBtu/hr, AP-42 emission factors, emissions before controls, and 8760 hours of operation:

116 MMBtu/hr * 8760 hr/yr * Ef lb/MMBtu * 1/1000 Btu/cf * 1/2000 ton/lb = tons Poll/yr

	PM 13.7 lb/MMcf	PM10 13.7 lb/MMcf	SO2 0.6 lb/MMcf	NOx 170 lb/MMcf	VOC 2.8 lb/MMcf	CO 35 lb/MMcf
ton/yr	**6.96**	**6.96**	**0.30**	**86.37**	**1.42**	**17.78**

No. 1 or No. 2 Fuel Oil Combustion:

The following calculations determine the UPTE based on No. 1 or No. 2 fuel oil combustion, 0.5% sulfur, a maximum capacity of 116 MMBtu/hr, AP-42 emission factors, emissions before controls, and 8760 hours of operation.

116 MMBtu/hr * 8760 hr/yr * 1/0.14 gal/MMBtu * 1/(1000) * Ef lb/ gal * 1/2000 tons/lb = tons/yr

	PM 2 lb/ 1000 gal	PM10 1 lb/ 1000 gal	SO2 71lb/1000 gal	NOx 20 lb/1000 gal	VOC .2 lb/1000 gal	CO 5 lb/1000 gal
ton/yr	**7.26**	**3.63**	**257.67**	**72.58**	**0.73**	**18.15**

Summary of Dryer Combustion UPTE:

The following table is a summary of the unrestricted potential to emit (UPTE) from the combustion of each of the dryer fuels.

The worst case emissions from any of the fuels to be combusted is identified in bold type.

	PM tons/yr	PM10 tons/yr	SO2 tons/yr	NOx tons/yr	VOC tons/yr	CO tons/yr
Natural Gas	6.96	**6.96**	0.30	**86.37**	**1.42**	17.78
No. 2 Fuel Oil	**7.26**	3.63	**257.67**	72.58	0.73	**18.15**

2. <u>Heater Emissions</u>:

The following calculations determine the UPTE based on No. 1 or No. 2 fuel oil combustion, 0.5% sulfur, a maximum capacity of 1.2 MMBtu/hr, AP-42 emission factors, emissions before controls, and 8760 hours of operation.

1.2 MMBtu/hr * 8760 hr/yr * 1/0.14 gal/MMBtu * 1/(1000) * Ef lb/ gal * 1/2000 tons/lb = tons/yr

	PM 2 lb/ 1000 gal	PM10 1 lb/ 1000 gal	SO2 71lb/1000 gal	NOx 20 lb/1000 gal	VOC .2 lb/1000 gal	CO 5 lb/1000 gal
ton/yr	**0.08**	**0.04**	**2.67**	**0.75**	**0.01**	**0.19**

3. <u>Aggregate Drying Emissions, Drum Mix Plant</u>:

The following calculations determine the UPTE based on EPA SCC#3-05-002-05 emission factors, a maximum rate of 350 tons per hour, emissions before controls, and 8760 hours of operation.

350 tons/hr * Ef lb/ton * 1/2000 ton/lb * 8760 hr/yr = tons Poll/yr

	PM 19 lb/ton	PM10 4.4 lb/ton	Lead 3.3 E-6 lb/ton	HAPs* 0.0058 lb/ton
ton/yr	**29127.00**	**6745.20**	**0.01**	**8.89**

* HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene, arsenic, cadmium, chromium, manganese, mercury, and nickel.

4. <u>Conveying/Handling Emissions</u>:

The following calculations determine the UPTE based on material handling of aggregate, AP-42 emission factors, emissions before controls, and 8760 hours of operation.

Ef = 0.0032 * [(u/5)^1.3 * k] / [(m/2)^1.4] = 0.015 lb/ton

where: k = 1 (particle size multiplier)
u = 12 mi/hr mean wind speed (worst case)
m = 1.5% moisture

PM = 0.015 lb/ton * 333 tons/hr * 8760 hr/yr * 1/2000 tons/lb = **21.8 tons/yr**
PM10 = 0.10 * 8.52 tons/yr = **2.18 tons/yr**

5. Screening:

PM = 333 tons/hr * 0.0315 lb/ton * 8760 * 1/2000 ton/lb = **45.90 tons/yr**
PM10 = 0.10 * 45.90 tons/yr = **4.59 tons/yr**

6. Unpaved Roads:

a. Tri-axle Trucks:

The following calculations determine the UPTE based on 22.5 trips/hr, 0.03 miles/roundtrip, AP-42 emission factors, emissions before controls, and 8760 hours of operation.

22.5 trips/hr * 0.03 mi/roundtrip * 8760 hr/yr = 5913.0 mi/yr

Ef = k * 5.9 * (s/12) * (S/30) * (W/3)^0.7 * (w/4)^0.5 * ((365 - p)/365) = 1.83 lb/mi

where: k = 0.8 (particle size multiplier)
s = 4.8% silt content of unpaved roads
p = 125 days of rain greater than 0.01 in
S = 5.0 mi/hr vehicle speed
W = 27.50 tons avg. vehicle wt.
w = 14 wheels

PM = 1.83 lb/mi * 5913 mi/yr * 1/2000 ton/lb = **5.4 tons/yr**
PM10 = 0.35 * 5.4 tons/yr = **1.9 tons/yr**

b. Front End Loader:

The following calculations determine the UPTE based on AP-42 emission factors, emissions before controls, and 8760 hours of operation.

5.0 trips/hr * 0.045 mi/roundtrip * 8760 hr/yr = 1971 mi/yr

Ef = k * 5.9 * (s/12) * (s/30) * (w/3)^0.7 * (w/4)^0.5 * ((365 - p)/365) = 1.83 lb/mi
where: k = 0.8 (particle size multiplier)
s = 4.8% silt content of unpaved roads
p = 125 days of rain greater than 0.01 in
S = 5.0 mi/hr vehicle speed
W = 22.50 tons avg. vehicle wt.
w = 14 wheels

PM = 0.85 lb/mi * 1971 mi/yr * 1/2000 ton/lb = **0.8 tons/yr**
PM10 = 035 * 0.8 tons/yr = **0.3 tons/yr**

7. Storage:

The following calculations determine the storage UPTE based on the maximum storage capacities, AP-42 emission factors, emissions before controls, and 8760 hours of operation.

Ef = 1.7 * (s/1.5) * [(365 - p) / 235] * (f/15) = lb/acre/day aggregate

sand = 1.74 lb/acre/day sand
RAP = 1.16 lb/acre/day RAP

where: s = 1.5% silt for sand
s = 1.0% silt for RAP
p = 125 days of rain greater than or equal to 0.01 in
f = 15% of wind greater than or equal to 12 mph

Ep (storage) = [Ef * sc * (20 cf/ton) * 365 day/yr] / [2000 lb/ton * 43560 sqft/acre * 25 ft]

= 0.01 tons/yr for sand
= 0.01 tons/yr for RAP
= **0.02 tons PM/yr total**

where: sc = 2,000 tons storage capacity for sand
sc = 2,000 tons storage capacity for RAP

PM10 = 0.35 * 0.02 tons PM/yr = **0.01 tons PM10/yr**

8. Storage Tank Emissions:

The storage tanks generate VOC and HAP emissions. The VOC and HAP UPTE of all the tanks combined, as determined by the EPA “Tanks 4" program are determined to be negligible.

EMISSIONS AFTER CONTROLS, PORTABLE PLANT ALONE:

The following is a summary of the emissions after controls. The detailed calculations follow the summary.

	PM tons/yr	PM10 tons/yr	SO2 tons/yr	NOx tons/yr	VOC tons/yr	CO tons/yr
Dryer Combustion	0.01	0.01	257.67	86.37	1.42	18.15
Heater	0.08	0.04	2.67	0.75	0.01	0.19
Aggregate Dryer	29.13	6.75	-	-	-	-
Conveying/Handling	21.80	2.18	-	-	-	-
Screening	45.90	4.59				
Unpaved Roads	3.10	1.10	-	-	-	-
Storage	0.01	0.01	-	-	-	-
Storage Tanks	-	-	-	-	neg.	-
Total	**100.03**	**14.68**	**260.34**	**87.12**	**1.43**	**18.34**

The SO2 emissions after controls exceed the Part 70 major source level of 100 tons per year.

1. Dryer Combustion Emissions:

The worst case PM and PM10 emissions are controlled with an overall efficiency of 99.9%.

PM = 7.26 tons/yr * 0.001 = **0.01 ton/yr**
PM10 = 6.96 tons/yr * 0.001 = **0.01 ton/yr**

2. Aggregate Drying Emissions:

The aggregate dryer PM/PM10 emissions are controlled with an overall efficiency of 99.9%.

PM = 29127 tons/yr * 0.001 = **29.13 tons/yr**
PM10 = 6745 tons/yr * 0.001 = **6.75 tons/yr**

3. Conveying/Handling Emissions:

The conveying/handling emissions are uncontrolled.

4. Screening:

The screening emissions are uncontrolled.

5. Unpaved Roads:

The PM/PM10 emissions are controlled with an overall efficiency of 50%.

PM = 6.2 tons/yr * 0.50 = **3.10 tons/yr**
PM10 = 2.2tons/yr * 0.50 = **1.10 tons/yr**

6. Storage Emissions:

The PM/PM10 emissions are controlled with an overall efficiency of 50%.

PM = 0.02 tons/yr * 0.50 = **0.01 tons/yr**
PM10 = 0.01 tons/yr * 0.50 = **0.01 tons/yr**

7. Heater:

The heater emissions are uncontrolled.

8. Storage Tanks:

The storage take emissions are uncontrolled.

FUEL USE LIMIT, PORTABLE PLANT ALONE:

1. Allowable SO2 Emission Rate:

Since the portable plant SO2 emissions exceed the Part 70 applicable level of 100 tons per year, a fuel use limit must be established to reduce the source SO2 emissions to below the Part 70 applicable level of 100 tons per year.

2. Adjusted Allowable Emission Rate for Dryer Combustion Fuel Use Limit:

The fuel use limit to be established, shall be for the dryer burner only. The portable plant has one other source of SO2 emissions, the oil heater, which generates SO2 UPTE of 2.67 tons/yr.

Therefore, the adjusted allowable emission rate that will be used to determine the fuel use limit for the dryer burner is 96.33 tons SO2/yr.

99.00 tons SO2/yr - 2.67 tons SO2/yr = 96.33 tons SO2/yr

3. Fuel Use Limit for Dryer Burner:

Based on the adjusted allowable SO2 emission rate for the dryer burner, the fuel limit is determined. No.1/No. 2 fuel oil is the worst case fuel for SO2 at the portable plant so the fuel use limit shall be determined for No. 1/No. 2 fuel oil.

96.33 tons SO2/yr * 2000 lb SO2/ton SO2 * 1/71 Tgal/lb SO2 * 1000 gal/Tgal = 2,713,521 gal/yr

4. Portable Plant Dryer Emissions After Fuel Use Limit, After Controls:

The following calculations determine the emissions generated after the fuel use limit. The PM/PM10 emissions are controlled with an overall efficiency of 99.9%.

No. 1/No. 2 Fuel Oil:

The following calculations determine the emissions associated with No. 1/No. 2 fuel oil, after the fuel use limit:

2,713,521 gal/yr * 1/1000 Tgal/gal * Ef lb Poll/Tgal * 1/2000 ton Poll/lb Poll = ton Poll/yr

PM tons/yr, After Fuel Use Limit, After Controls = PM Before Controls (tons/yr) * (1 - 0.999)
PM10 tons/yr, After Fuel Use Limit, After Controls = PM10 Before Controls (tons/yr) * (1 - 0.999)

	PM 2 lb/ 1000 gal	PM10 1 lb/ 1000 gal	SO2 71lb/1000 gal	NOx 20 lb/1000 gal	VOC .2 lb/1000 gal	CO 5 lb/1000 gal
ton/yr	**neg.**	**neg.**	**96.33**	**27.14**	**0.27**	**6.78**

Natural Gas:

The following calculations determine the emissions associated with natural gas, after the fuel use limit.

2,713,521 gal/yr * 142,000 Btu/gal * 1/1000 cf/Btu = 385,319,982 cf/yr

The following calculations determine the emissions associated with the equivalent fuel use limit:

385,319,982 cf/yr * 1/1E6 MMcf/cf * Ef lb Poll/MMcf * 1/2000 ton Poll/lb Poll = ton Poll/yr

PM tons/yr, After Fuel Use Limit, After Controls = PM Before Controls (tons/yr) * (1 - 0.999)
PM10 tons/yr, After Fuel Use Limit, After Controls = PM10 Before Controls (tons/yr) * (1 - 0.999)

	PM 13.7 lb/MMcf	PM10 13.7 lb/MMcf	SO2 0.6 lb/MMcf	NOx 170 lb/MMcf	VOC 2.8 lb/MMcf	CO 35 lb/MMcf
ton/yr	**neg.**	**neg.**	**0.12**	**32.75**	**0.54**	**6.74**

5. Worst Case Dryer Combustion Emissions After Fuel Use Limit:

The following is a summary of the worst case pollutant emissions generated by combustion of all fuels combusted at the portable plant. The worst case pollutant emission are listed in bold type.

Portable Plant	PM tons/yr	PM10 tons/yr	SO2 tons/yr	NOx tons/yr	VOC tons/yr	CO tons/yr	Comb. HAPs tons/yr
No. 1/No. 2 Fuel Oil	**neg.**	**neg.**	**96.33**	27.14	0.27	**6.78**	**6.42**
Natural Gas	neg.	neg.	0.12	**32.75**	**0.54**	6.74	5.23

6. Portable Plant Source Emissions After Controls, After Fuel Use Limit:

The following is a summary of the portable plant source emissions after controls, after application of all limits.

	PM tons/yr	PM10 tons/yr	SO2 tons/yr	NOx tons/yr	VOC tons/yr	CO tons/yr	Comb. HAPs tons/yr
Dryer Combustion	neg.	neg.	96.33	32.75	0.54	6.78	6.42
Heater	0.08	0.04	2.67	0.75	0.01	0.19	neg.
Aggregate Dryer	29.13	6.75	-	-	-	-	-
Conveying/Handling	21.8	2.18	-	-	-	-	-
Screening	45.90	4.59	-	-	-	-	-
Unpaved Roads	3.10	1.10	-	-	-	-	-
Storage	0.01	0.01	-	-	-	-	-
Tanks	-	-	-	-	neg.	-	neg.
Total	**100.02**	**14.67**	**99.00**	**33.50**	**0.55**	**6.97**	**6.42**

FUEL USE LIMIT, PORTABLE PLANT UNDER ALTERNATIVE OPERATING SCENARIO:

1. Allowable SO2 Emission Rate:

Since the combined portable and stationary plant allowable SO2 emissions exceed the Part 70 applicable level of 100 tons per year, a separate fuel use limit must be established for each plant. Based on the combined allowable rate of 99 tons per year, and the established portable plant SO2 emissions of 44.5 tons per year, the allowable rate to be used to determine the portable plant fuel use limit is as follows:

99 tons SO2/yr - 54.5 tons SO2/yr = 44.5 tons SO2/yr

2. Adjusted Allowable Emission Rate for Dryer Combustion Fuel Use Limit:

The fuel use limit shall be established for the dryer burner. The portable plant has one other source of SO2 emissions, the oil heater, which generates SO2 UPTE of 2.67 tons/yr. Therefore, the adjusted allowable emission rate that will be used to determine the fuel use limit for the dryer burner is 41.83 tons SO2/yr.

44.5 tons SO2/yr - 2.67 tons SO2/yr = 41.83 tons SO2/yr

3. Fuel Use Limit for Dryer Burner:

Based on the adjusted allowable SO2 emission rate for the dryer burner, the fuel limit is determined. No. 1 and No. 2 fuel oil is the worst case fuel for SO2 at the portable plant so the fuel use limit shall be determined for No. 1 and No. 2 fuel oil.

41.83 tons SO2/yr * 2000 lb SO2/ton SO2 * 1/71 Tgal/lb SO2 * 1000 gal/Tgal = 1,178,309 gal/yr

4. Portable Plant Dryer Emissions After Fuel Use Limit:

The calculations that follow, determine the emissions from the two fuels combusted at the portable plant (No. 1 or 2 fuel oil and natural gas) based on the respective emission factors and the established fuel use limit. The PM/PM10 emissions are controlled with an efficiency of 99.9%.

No. 1 or No. 2 Fuel Oil:

The following calculations determine the emissions associated with the fuel use limit:

1,178,309 gal/yr * 1/1000 Tgal/gal * Ef lb Poll/Tgal * 1/2000 ton Poll/lb Poll = ton Poll/yr

PM tons/yr, After Fuel Use Limit, After Controls = PM Before Controls (tons/yr) * (1 - 0.99)
PM10 tons/yr, After Fuel Use Limit, After Controls = PM10 Before Controls (tons/yr) * (1 - 0.99)

	PM 2 lb/ 1000 gal	PM10 1 lb/ 1000 gal	SO2 71lb/1000 gal	NOx 20 lb/1000 gal	VOC .2 lb/1000 gal	CO 5 lb/1000 gal
ton/yr	**neg.**	**neg.**	**41.83**	**11.78**	**0.12**	**2.95**

Natural Gas:

The following calculations determine the equivalent fuel limit for natural gas.

1,178,309 gal/yr * 142,000 Btu/gal * 1/1000 cf/Btu = 167,319,878 cf/yr

The following calculations determine the emissions associated with the equivalent fuel use limit:

167,319,878 cf/yr * 1/1E6 MMcf/cf * Ef lb Poll/MMcf * 1/2000 ton Poll/lb Poll = ton Poll/yr

PM tons/yr, After Fuel Use Limit, After Controls = PM Before Controls (tons/yr) * (1 - 0.99)
PM10 tons/yr, After Fuel Use Limit, After Controls = PM10 Before Controls (tons/yr) * (1 - 0.99)

	PM 13.7 lb/MMcf	PM10 13.7 lb/MMcf	SO2 0.6 lb/MMcf	NOx 170 lb/MMcf	VOC 2.8 lb/MMcf	CO 35 lb/MMcf
ton/yr	**neg.**	**neg.**	**0.05**	**14.22**	**0.23**	**2.93**

5. Worst Case Dryer Combustion Emissions After New Limit:

To determine the portable plant emissions, the worst case pollutant combustion emissions from the two fuels are needed. The following table lists the worst case pollutant emissions in bold type.

Plant 7575	PM tons/yr	PM10 tons/yr	SO2 tons/yr	NOx tons/yr	VOC tons/yr	CO tons/yr	Comb. HAPs tons/yr
Natural Gas	neg.	**neg.**	0.05	**14.22**	**0.23**	2.93	4.43
No. 2 Fuel Oil	**neg.**	neg.	**41.83**	11.78	0.12	**2.95**	**5.88**

6. Portable Plant Source Emissions After Controls, After New Fuel Use Limit:

The following table lists the emissions from the portable plant after controls, after the new limit.

Portable Plant	PM tons/yr	PM10 tons/yr	SO2 tons/yr	NOx tons/yr	VOC tons/yr	CO tons/yr	Comb. HAPs tons/yr
Drum Burner	neg.	neg.	41.83	14.22	0.23	2.95	5.88
Aggregate Dryer	29.13	6.75	-	-	-	-	-
Convey/Handling	21.8	2.18	-	-	-	-	-
Storage	0.01	0.01	-	-	-	-	-
Unpaved Roads	3.10	1.10	-	-	-	-	-
Screening	45.90	4.59	-	-	-	-	-
Hot Oil Heater	0.08	0.04	2.67	0.75	0.01	0.19	neg.
Tanks	-	-	-	-	neg.	-	neg.
Total	**100.02**	**14.67**	**44.50**	**14.97**	**0.24**	**3.14**	**5.88**

PORT. AND STATIONARY PLANT EMISSIONS UNDER ALTERNATIVE OPERATING SCENARIO:

The following table lists the combined emissions after controls, after all limitations for the portable and proposed stationary plants.

	PM tons/yr	PM10 tons/yr	SO2 tons/yr	NOx tons/yr	VOC tons/yr	CO tons/yr	Combined HAPs tons/yr
Portable	100.02	14.67	44.50	14.97	0.24	3.14	5.88
Stationary	28.88	4.58	54.50	19.28	97.60	4.18	2.40
Total	**128.90**	**19.25**	**99.00**	**34.25**	**97.84**	**7.32**	**8.28**

None of the pollutant emissions exceed their respective applicable Part 70 thresholds. Thus, no Part 70 permit is required as a result of the proposed co-location and co-operation of the existing portable and proposed stationary asphalt plants.

EQUATIONS FOR DETERMINING EQUIVALENT FUEL USE FOR OTHER FUELS COMBUSTED:

1. Stationary Plant Alone:

The fuel use limit for the stationary plant dryer burner alone is 2,639,733 gallons of equivalent re-refined oil per year. Since natural gas, No. 4 fuel oil, and No. 1/No. 2 fuel oil will also be combusted at the stationary plant dryer, an equation must be established for each of the alternative fuels so that records can be kept, reports sent, and compliance demonstrated.

The following calculations determine the equivalent equations for natural gas, No. 4 fuel oil, and re-refined oil.

a. Natural Gas:

374,842,086 cu ft * X = 2,639,733 gal, X = 0.007042254

Natural Gas Equation:	Cubic Feet Natural Gas	*	0.007042254	=	gallons re-refined oil	

b. No. 1/No. 2 Fuel Oil:

2,716,247 gal * X = 2,639,733 gal, X = 0.971831542

No. 1/No. 2 Fuel Oil Equation:	Gallons No. 1/No. 2 Oil	*	0.971831542	=	gallons re-refined oil	

c. No. 4 Fuel Oil:

2,567,411 gal * X = 2,639,733 gal, X = 1.028169722

No. 4 Fuel Oil Equation:	Gallon No. 4 Fuel Oil	*	1.028169722	=	gallons re-refined oil	

2. Stationary Plant Under Alternative Operating Scenario:

The fuel use limit for the stationary plant dryer burner under the alternative operating scenario is 1,453,066 gallons of equivalent re-refined oil per year. Since natural gas, No. 4 fuel oil, and No. 1/No. 2 fuel oil will also be combusted at the stationary plant dryer, an equation must be established for each of the alternative fuels so that records can be kept, reports sent, and compliance demonstrated.

The following calculations determine the equivalent equations for natural gas, No. 4 fuel oil, and re-refined oil.

a. Natural Gas:

206,335,372 cu ft * X = 1,453,066 gal, X = 0.007042254

Natural Gas Equation:	Cubic Feet Natural Gas	*	0.007042254	=	gallons re-refined oil	

b. No. 1/No. 2 Fuel Oil:

1,495,183 gal * X = 1,453,066 gal, X = 0.971831542

No. 1/No. 2 Fuel Oil Equation: Gallons No. 1/No. 2 Oil * 0.971831542 = gallons re-refined oil

g. No. 4 Fuel Oil:

1,413,255 gal * X = 1,453,066 gal, X = 1.028169722

No. 4 Fuel Oil Equation: Gallon No. 4 Fuel Oil * 1.028169722 = gallons re-refined oil

3. Portable Plant Alone:

The fuel use limit for the portable plant dryer burner is 2,713,521 gallons of equivalent No. 1/No. 2 fuel oil per year. Since natural gas is also combusted at the portable plant dryer, an equation must be established so that records can be kept, reports sent, and compliance demonstrated.

The following calculations determine the equivalent equation for natural gas:

385,319,982 cu ft * X = 2,713,521 gal, X = 0.007042254

Natural Gas Equation: Cubic Feet Natural Gas * 0.007042254 = gallons No. 1 or No. 2 Oil

8. Portable Plant Under Alternative Operating Scenario:

The fuel use limit for the portable plant dryer burner is 1,178,309 gallons of equivalent No. 1/No. 2 fuel oil per year. Since natural gas is also combusted at the portable plant dryer, an equation must be established so that records can be kept, reports sent, and compliance demonstrated.

The following calculations determine the equivalent equation for natural gas:

167,319,878 cu ft * X = 1,178,309 gal, X = 0.007042254

Natural Gas Equation: Cubic Feet Natural Gas * 0.007042254 = gallons No. 1 or No. 2 Oil

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.”

This table reflects the PTE from the portable asphalt plant. The PTE in this table is the unrestricted PTE based on emissions before controls and limits, and is based on 8760 hours of operation. PTE, based on emissions after controls and after application of all limitations, occurs only after the controls and limits become federally enforceable.

Pollutant	Potential To Emit (tons/year)
PM	29208.26
PM-10	6761.18
SO_2	260.34
VOC	1.43
CO	18.34
NO_x	87.12

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

Combined HAP Emissions	8.89 tons/yr

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of the applicable PM10 and SO2 are equal to or greater than 100 tons per year. Therefore, the these pollutants make the source subject to the provisions of 326 IAC 2-7 or 326 IAC 2-8.

(b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of each single HAP is less than the applicable level of 10 tons per year, and the combined HAPs are less than the applicable level of 25 tons per year. Therefore, the these pollutants do no make the source subject to the provisions of 326 IAC 2-7 or 326 IAC 2-8.

(c) Fugitive Emissions
This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, but the applicable NSPS (40 CFR 60, Subpart I) will be in effect after August 7, 1980.

County Attainment Status

The source is located in Daviess County.

Pollutant	Status
PM_{10}	attainment or unclassifiable
SO_2	attainment or unclassifiable
NO_2	attainment or unclassifiable
Ozone	attainment or unclassifiable
CO	attainment or unclassifiable
Lead	attainment or unclassifiable

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Daviess County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2 and 40 CFR 52.21.

(b) Daviess County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

1. Existing Source PSD Definition Without Alternative Operating Scenario:

Pollutant	Emissions (tons/year)
PM	100.02
PM10	14.67
SO_2	99.00
VOC	0.55
CO	6.97
NO_x	33.50

Combination of HAPs	6.42

(a) The above emissions are based on emission after controls, with application of a fuel use limit of 2,713, 521 equivalent gallons of No. 1/No.2 fuel oil per year. This fuel use limit is based on the portable plant operating alone, with the limit being determined based on an allowable SO2 emission rate of 99 tons/yr, AP-42 emission factors, all worst case scenarios, and 8760 hours of operation.

(b) This existing portable plant is not a major PSD stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more and it is not one of the 28 listed source categories.

(c) This existing portable plant is not a Title V major stationary source because no criteria pollutant PTE exceeds the applicable level of 100 tons per year, no single HAP PTE exceeds the applicable level of 10 tons per year, and the combined HAP PTE does not exceed the applicable level of 25 tons per year.

2. Existing Source PSD Definition Under Alternative Operating Scenario:

Pollutant	Emissions (tons/year)
PM	100.02
PM10	14.67
SO_2	44.50
VOC	0.24
CO	3.14
NO_x	14.97

Combination of HAPs	5.88

(a) The above emissions are based on emission after controls, with application of a fuel use limit of 1,178,309 equivalent gallons of No. 1/No. 2 fuel oil per year (98,192 gallons/month). This fuel use limit is based on the stationary plant simultaneously operating with the portable plant, with the limit being determined based on an allowable SO2 emission rate of 54.5 tons/yr for the stationary plant, an allowable SO2 emission rate of 44.5 tons/yr for the portable plant, AP-42 emission factors, all worst case scenarios, and 8760 hours of operation.

(b) This existing portable plant under the alternative operating scenario is not a major PSD stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more and it is not one of the 28 listed source categories.

(c) This existing portable plant under the alternative operating scenario is not a Title V major stationary source because no criteria pollutant PTE exceeds the applicable level of 100 tons per year, no single HAP PTE exceeds the applicable level of 10 tons per year, and the combined HAP PTE does not exceed the applicable level of 25 tons per year.

Federal Rule Applicability

1. New Source Performance Standards (NSPS):

a. Portable Plant New Source Performance Standards (NSPS):

(1) 40 CFR 60, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities:

The portable drum hot mix asphalt plant is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.90, Subpart I) under their existing FESOP. Pursuant to the NSPS, the following apply to this facility:

The conditions of the existing FESOP (027-7575-05023) shall be amended as follows, to reflect the revised conditions of the proposed stationary plant FESOP. The same language shall be incorporated into the alternative operating scenario of the portable plant FESOP.

40 CFR 60.92 : Standard for Particulate Matter:

The applicable NSPS limits of Conditions D.1.4 and D.1.5 (now D.1.2 and D.1.3) shall remain the same.

D.1.2 Particulate Matter (PM)
Pursuant to 326 IAC 6-1-2 , particulate matter emissions from the aggregate dryer/mixer shall not exceed 0.030 grains per dry standard cubic foot equivalent to 11.0 pounds per hour. Compliance with these limits will satisfy the New Source Performance Standards, 326 IAC 12 (40 CFR 60.90 to 60.93, Subpart I).

D.1.3 Opacity Limitations
Pursuant to New Source Performance Standards, 326 IAC 12 (40 CFR 60.90 to 60.93, Subpart I), visible emissions from the plant shall not exceed 20 percent opacity. Compliance with this limit will also satisfy 326 IAC 5-1.

40 CFR 60.93:Test Methods and Procedures:

No NSPS testing requirements were incorporated into the original FESOP. Therefore, the following condition (D.1.9) shall be added.

Pursuant to 40 CFR 60.93(a) and (b), the owner or operator shall determine compliance with the particulate matter (PM) and opacity limits of Conditions D.1.2 (D.3.7) and D.1.3 (D.3.8) by conducting performance tests as specified in 40 CFR 60, Section 60.8, utilizing the following test methods of Appendix A of Part 60:

(a) Method 5 to determine the particulate matter concentration, with the sampling time and sample volume for each run being at least 60 minutes and 31.8 dscf, respectively, and
(b) Method 9 and the procedures in 60.11 to determine opacity,

unless otherwise specified in 60.8.

The above condition shall be included in compliance determination Sections D.1 and D.3.

(2) 40 CFR 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984:

The two (2) storage tanks (MS2 and MS4) could be subject to NSPS, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb) since they were constructed after July 23, 1984. MS 4 has a storage capacity of less than 40 cubic meters and is exempt from the provisions of this Subpart. Storage Tank MS2 has a vapor pressure less than 15.0 kiloPascals and this tank is subject to only 40 CFR Part 60.116b, paragraphs (a) and (b) which requires recordkeeping.

Section 2 of the significant permit revision shall be the same as Section 2 of the original FESOP.

b. Stationary Plant NSPS Applicability Due to Proposed Co-Location:

The proposed co-location will not affect the proposed NSPS requirements of the stationary asphalt plant.

2. National Emission Standards for Hazardous Air Pollutants (NESHAP):

a. Portable Plant National Emission Standards for Hazardous Air Pollutants (NESHAP):

There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) applicable to the portable asphalt plant.

h. Stationary Plant NESHAP Applicability Due to Proposed Co-operation:

The proposed co-location will not trigger any NESHAP requirements for the stationary plant.

Entire State Rule Applicability

1. Portable Asphalt Plant:

a. 326 IAC 2-8-4(FESOP):

Three limits have been established under 326 IAC 2-8-4.

One general entire source limit pursuant to 326 IAC 2-8-4 is located in Section C. This limit requires all pollutant emissions to be less than their respective Part 70 thresholds.

The existing overall source limit is amended as follows to reflect more current language.

C.1 Overall Source Limit [326 IAC 2-8]
~~Pursuant to 326 IAC 2-8, emissions of any regulated pollutant from the entire source shall not exceed ninety-nine (99) tons per three hundred sixty five (365) day period. Emissions of hazardous air pollutants (HAPs) from the entire source shall not exceed nine (9) tons per three hundred sixty five (365) day period of any individual HAP or twenty-four (24) tons per three hundred sixty five (365) day period of any combination of HAPs. Emissions shall include those from all emission points at the source including those that are insignificant as defined in 326 IAC 2-7-1(20). The source shall be allowed to add insignificant activities not already listed in this permit, as long as the total emissions from the source do not exceed the above specified limits. Limits in Section D will be enforced independently.~~

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(c) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

Two other fuel use limits under 326 IAC 2-8-4 have been established because the source SO2 emissions while operating alone exceed 100 tons/yr and the combined stationary and portable source co-located SO2 emissions exceed 100 tons per year.

The first limit establishes an annual aggregate dryer fuel use limit when the portable plant is operating alone at its site. The annual limit established is 2,713,521 equivalent gallons of No. 1/No. 2 fuel oil per year.

The second limit pertains to the alternative operating scenario (when the portable asphalt plant co-located with the stationary plant). The latter fuel use limit is a monthly limit based on the portable plant adjusted allowable SO2 emission rate of 44.5 tons/yr. This limit associated with the adjusted allowable SO2 rate is determined to be 1,178,309 gallons equivalent No. 1/No. 2 fuel oil per year (98,192 equivalent gallons of No. 1/No. 2 fuel oil per month).

Since the more recent AP-42 emission factors in addition to these fuel use limits reduce the source emissions to less than their respective Part 70 thresholds, the following existing limits shall be deleted.

~~D.1.2 Sulfur Dioxide (SO_2)~~
~~Pursuant to 326 IAC 2-8-4, the usage of #2 fuel oil by the C1 burner shall be limited to 234,478 gallons per month. This fuel usage limitation was taken voluntarily by the company and is equivalent to sulfur dioxide emissions of 8.03 tons per month from the C1 burner and 8.25 tons per month from the entire source. This fuel oil limit does not allow NO_x emissions to exceed 8.25 tons per month. Due to this limit, the Emission Offset (326 IAC 2-3) and Part 70 (326 IAC 2-7) rules do not apply.~~
~~D.1.3 Nitrogen Oxides (NO_x)~~
~~Pursuant to 326 IAC 2-8-4, the usage of natural gas by the C1 burner shall be limited to 29.8 million cubic feet per month. For purposes of determining compliance based on NO_x emissions, each 1000 gallons of #2 fuel oil burned by the C1 burner shall be equivalent to 0.036 million cubic feet of natural gas. This fuel usage limitation was taken voluntarily by the company and is equivalent to NO_x emissions of 8.18 tons per month from the C1 burner and 8.25 tons per month from the entire source. This natural gas fuel usage limitation does not allow sulfur dioxide emissions to exceed 8.25 tons per month. Due to this limit, the Emission Offset (326 IAC 2-3) and Part 70 (326 IAC 2-7) rules do not apply.~~

~~D.1.6 Particulate matter less than 10 microns (PM-10)~~
~~Pursuant to 326 IAC 2-8-4, PM_{10} emissions from the aggregate dryer/mixer shall not exceed 2.56 pounds per hour. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.~~

With the above limits removed, the following limits shall be added.

D.1.4 Fuel Use Limit [326 IAC 2-8-4]

The owner or operator shall limit fuel use at the aggregate dryer as follows:

(a) The total equivalent No. 1/No. 2 fuel oil usage at the portable asphalt plant shall not exceed 2,713,521 gallons per consecutive twelve (12) month period.

For the purposes of Paragraph (a) of this Condition, the following conversions shall be used to determine the equivalent No. 1/No. 2 fuel oil use for natural gas:

Natural Gas: X CuFt Natural Gas * 0.007042254 = Gallons No. 1/No. 2 Fuel Oil

(b) When the portable asphalt plant is co-located with the stationary asphalt plant, the total monthly equivalent No. 1/No. 2 fuel oil usage at the portable asphalt plant shall not exceed the levels established in Condition D.3.10.

D.3.10 Portable Asphalt Plant Fuel Use Limit [326 IAC 2-8-4]

The total equivalent combined No. 1/No. 2 fuel oil usage at the portable plant shall not exceed 98,192 gallons per month when the portable asphalt plant is co-located with the stationary asphalt plant.

For the purposes of this Condition, the following conversion shall be used to determine the equivalent No. 1/No.2 fuel oil use for natural gas:

Cubic Feet Natural Gas * 0.007042254 = Gallons No. 1/No. 2 Fuel Oil

The annual limit shall be placed in Section D.1 because it pertains to the portable plant at all times and the monthly limit shall be placed in Section D.3 because it reduces the monthly emissions during all months the portable plant is co-located with the stationary plant.

b. 326 IAC 1-6-3 (Preventive Maintenance Plan):

The source is required to have a preventive maintenance plan pursuant to 326 IAC 1-6-3.

c. 326 IAC 1-5-2 (Emergency Reduction Plans):

No emergency reduction plan under 326 IAC 1-5-2 of the portable plant is required because there are no pollutant emissions that exceed the applicable level of 100 tons/yr.

d. 326 IAC 2-6 (Emission Reporting):

This portable asphalt plant is not required to submit an emission report under 326 IAC 2-6 because the source PTE of carbon monoxide (CO), volatile organic compounds (VOC), oxides of nitrogen (NOx), PM10, and sulfur dioxide, each, are less than the applicable level of 100 tons per year.

e. 326 IAC 5-1 (Visible Opacity Limitations):

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

(a) Visible emissions shall not exceed an average of thirty percent (30%) opacity in twenty-four (24) consecutive readings,

(b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (60 readings) in a six (6) hour period.

(c) Unless otherwise stated in section D.

f. 326 IAC 6-4 (Fugitive Emissions):

This rule applies to the portable asphalt plant because 326 IAC 6-4 applies to all sources of fugitive dust.

g. 326 IAC 6-5 (Fugitive Emissions):

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted to the Office of Air Quality. The plan consists of:

(a) Cleaning paved roads and parking lots by sweeping on an as needed basis (monthly minimum). Power brooming paved roads and parking lots while wet.

(b) Paving unpaved roads and parking lots with asphalt. Treating with emulsified asphalt as needed. Treating with water as needed. Double chip and seal the road surface and maintain on an as needed basis.

In order to reduce fugitive emissions, Rogers Group, Incorporated shall pave all unpaved roads at the source. Due to this condition, PSD (326 IAC 2-2) and Emission Offset (326 IAC 2-3) rules do not apply.

(c) Maintain minimum size and number of stock piles of aggregate. Treat around the stockpile with emulsified asphalt on an as needed basis. Treat around the stockpile with water as needed. Treat the stockpiles with water as needed.

(d) Apply water at the feed and the intermediate points of the conveyers as needed.

(e) Minimize the vehicular distance between transfer points of aggregates. Enclose the transfer points. Apply water to the transfer points on an as-needed basis.

(f) Tarp aggregate hauling vehicles. Maintain vehicle bodies to prevent leakage. Spray aggregates with water during transport. Maintain a 10 mile per hour speed limit in the yard.

(g) Reduce free fall distance during loading and unloading. Reduce the rate of discharge of the aggregate. Spray the aggregate with water on an as needed basis.

h. 326 IAC 8-5-2 (Volatile Organic Compound (VOC) Limitations):

The portable asphalt is subject to 326 IAC 8-5-2 “Miscellaneous Operations, Asphalt Paving” because this rule applies to any paving application anywhere is the state. The following condition is placed in Section C because the rule applies to the entire source.

Pursuant to 326 IAC 8-5-2, the owner or operator shall not allow the use of asphalt emulsion containing more than seven percent (7%) oil distillate by volume emulsion, except as used for the following purposes:

(a) Penetrating prime coating,

(b) stockpile storage mix, and

(c) application during the months of November, December, January, February, and March.

For the purposes of this condition, “asphalt emulsion” shall mean any dispersion of asphalt in water, optional additives, optional distillates, and emulsifying agents.

2. Stationary Asphalt Plant:

The proposed co-location will not affect any entire state requirements applicable to the proposed stationary asphalt plant.

State Rule Applicability - Individual Facilities

1. Portable Asphalt Plant:

a. 326 IAC 6-1-2 (Particulate Emissions Limitations for Asphalt Concrete Plants constructed after June 11, 1973)

This rule requires that particulate matter emissions from the asphalt plant not exceed 0.03 grains per dry standard cubic foot equivalent to 11.0 pounds per hour. Therefore, the requirements of 326 IAC 2-2, 326 IAC 2-3, and 326 IAC 2-7, do not apply.

b. 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations)

This source is subject to the requirements of 326 IAC 7-1.1 because the potential to emit (PTE) of SO2 for the worst case fuel (260.34 tons per year) are greater than the applicable level of 25 tons per year.

The following existing FESOP conditions shall be amended or deleted to reflect the applicable revised language.

~~D.1.1 Sulfur Dioxide (SO_2)~~
~~Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations),~~ **The aggregate dryer** sulfur dioxide **(SO2)** emissions **shall not exceed** ~~from the combustion of distillate (#2) oil shall be limited to~~ **five-tenths (**0.5**)** pound~~s~~ per million British thermal units ~~heat input (the equivalent of 0.476 percent sulfur content)~~ **when combusting No. 1/ No. 2 distillate oils**.

~~D.1.8 Fuel Oil Sampling and Analysis~~
~~Oil samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted. The Permittee shall analyze the oil sample to determine the sulfur content of the oil in accordance with 326 IAC 3-3-4. If a partially empty fuel tank is refilled, a new sample and analysis is required upon filling. Vendor analysis of each load delivered is acceptable, in lieu of the above, if accompanied by a certification.~~

~~D.1.13 Operational Parameters~~
~~The Permittee shall maintain monthly records at the source of the following values:~~

~~(a) Amount of #2 fuel oil and natural gas used by the C1 burner (expressed in gallons and million cubic feet respectively);~~

~~(b) The records for fuel oil shall contain a minimum of the following:~~

~~(1) Average sulfur content of the #2 fuel oil used;~~

~~(2) Average higher heating value of the #2 fuel oil used;~~

~~(3) Average sulfur dioxide emission rate (expressed in pounds per million British thermal units);~~

~~(4) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and~~

~~(5) Regular fuel sampling and analysis performed as specified in 326 IAC 3-3-4, or fuel supplier certifications containing, as a minimum, the following:~~

~~(a) The name of the oil supplier, and~~

~~(b) A statement from the oil supplier that certifies the sulfur content of the fuel oil.~~

The following conditions shall be added to the permit.

Compliance Determination 326 IAC 326 IAC 7-2-1(e),(e)(2),(f); 326 IAC 3-7-4; 326 IAC 3-7-5(b)]:

The owner or operator shall determine compliance with the limits of Condition D.1.1(D.3.9) by sampling and analyzing all distillate and fuel oils combusted at the portable plant and computing the sulfur dioxide (SO2) emission rates utilizing the applicable sampling and analysis data. Said sampling, analyses, and computations shall be performed as follows:

(a) Fuel Sampling and Analysis Methods:

To sample and analyze all fuel oils combusted at the portable asphalt plant, the owner or operator shall either:

(1) utilize the following prescribed methods:

(A) The fuel oil samples shall be collected utilizing one of the following methods:

(i) ASTM D4057-88*, "Standard Practice for Manual Sampling of Petroleum and Petroleum Products", or
(ii) ASTM D4177-82*, "Standard Method for Automatic Sampling of Petroleum and Petroleum Products";

(B) The sulfur content shall be determined utilizing one of the following methods:

(i) ASTM D129-95*, "Standard Test Method for Sulfur in Petroleum Products (General Bomb Method)",
(ii) ASTM D1266-91*, "Standard Test Method for Sulfur in Petroleum Products (Lamp Method)",

(iii) ASTM D1552-95*, "Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method)", or

(iv) ASTM D2622-94*, "Standard Test Method for Sulfur in Petroleum Products (X-ray Spectrographic Method)"; and

(C) The heat content shall be determined utilizing ASTM D240-92*, "Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter".

*** Copies of the American Society for Testing and Materials (ASTM) procedures referenced may be obtained from ASTM, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania, 19428, (610) 832-9585, and are available for copying at the Indiana Department of Environmental Management, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, Indiana 46206-6015.**

or

(2) utilize alternative sampling and analysis methods, provided the methods are determined, by the Office of Air Quality, to be acceptable equivalents to the methods specified in (a)(1) of this Condition.

or

(3) utilize sampling and analysis data supplied by the vendor, as obtained from tests performed on the fuel oils prior to delivery of the fuel oil, provided the tests performed on the fuel oils are determined to be acceptable equivalents to the methods specified in paragraph (a)(1) of this Condition.

(b) Sulfur Dioxide Emission Rates:

Computation of the calculated sulfur dioxide emissions rates to be used to demonstrate compliance with the limits of Condition D.1.1 (D.3.9) shall be determined based on a calendar month average sulfur dioxide emission rate in pounds per million Btu, utilizing the applicable fuel sampling and analysis data and the emission factors contained in U. S. EPA publication AP-42, "Compilation of Air Pollutant Emission Factors" (September 1988), unless other emission factors based on site specific sulfur dioxide measurements are approved by the Office of Air Quality and the U. S. EPA.**

**** Copies of the Code of Federal Regulations (CFR) and AP-42 referenced may be obtained from the Government Printing Office, Washington, D.C. 20402. Copies of pertinent sections are also available at the Indiana Department of Environmental management, Office of Air Quality, Indiana Government Center-North, 100 North Senate Avenue, Room 1001, P.O. Box 6015, Indianapolis, IN 46206-6015.**

In order to determine compliance with requirements of this Condition and Condition D.1.1 (D.3.9), the Office of Air Quality reserves the right to, at any time, perform a systems audit to determine compliance with the required fuel sampling and analysis procedures. However, prior to such an audit, the owner or operator who becomes subject to an audit shall be provided a copy of the required audit procedures.

Should the Office of Air Quality make a determination of noncompliance with the requirements of this Condition or the limits of Condition D.1.1 (D.3.9), no other compliance determination methods specified in 326 IAC 7 shall be used by the owner or operator to refute the evidence of noncompliance.

Compliance Monitoring (326 IAC 7-2-1(c)(3)):
To demonstrate compliance with the requirements of Conditions D.1.1(D.3.9) and D.1.4(D.3.10), the owner or operator shall, for all fuels combusted at the dryer burner during each calendar month:

(a) either:

(1) list the sampling and analysis methods used to comply with the requirements of Condition D.1.10(a)(1) (D.3.20(a)(1)) and record the results of said tests,
(2) list the sampling and analysis methods used to comply with the requirements of Condition D.1.10(a)(2) (D.3.20(a)(2)) and record the results of said tests, or
(3) if the owner or operator utilizes vendor sampling and analysis data as provided for in Condition D.1.10(a)(3) (D.3.20(a)(3)):

(A) obtain a certifications from the fuel supplier containing, at a minimum, the following:

(i) the name of the oil supplier,
(ii) a statement from the oil supplier that certifies the tests completed by the vendor are equivalent to the methods specified in Condition D.1.10(a)(1) (D.3.20(a)(1)) and the data supplied by the vendor is correct and accurate, and
(iii) an attachment containing the information necessary to determine the fuel properties required in Paragraph (b) of this Condition; and

(B) complete a certification, signed by the owner or operator, that states that the certifications and fuel sampling and analyses conducted, represent all of the fuel combusted during the period;

(b) record the following fuel oil properties, utilizing the applicable methods specified in Condition D.1.10 (D.3.20):

(1) the calendar month average sulfur content of all No. 1 and No. 2 oils combusted in percent sulfur,
(2) the heat content of each fuel combusted in Btu/ gallons or Btu/cf, whichever is applicable,
(3) the sulfur dioxide emission rate in pounds per million Btu; and

(c) record on a monthly basis:

(1) the applicable month,
(2) the amount of No. 1/No. 2 fuel oil combusted per month, and
(3) the amount of equivalent natural gas in gallons of No. 1/No. 2 fuel oil per month,

combusted at aggregate dryer.

Record Keeping (326 IAC 2-7-1(c)(3); 326 IAC 3-7-5(b)):

All of the other record keeping requirements of the portable plant have been included with the 326 IAC 7 requirements for one comprehensive condition.

The owner or operator shall keep:

(a) either:

(1) a copy of the sampling and analysis test results as specified in Condition D.1.11(a)(1) (D.3.25(a)(1)),
(2) a copy of the sampling and analysis test results as specified in Condition D.1.11(a)(2) (D.3.25(a)(2)), or
(3) if the owner or operator utilizes vendor sampling and analysis data as provided for in Condition D.1.10(a)(3) (D.3.20(a)(3)), copies of the certifications required in Condition D.1.11(a)(3) (D.3.25(a)(3));

(b) records of the fuel oil properties required in Condition D.1.11(b) (D.3.25(b));

(c) records of the amount of fuel combusted, as required in Condition D.1.11(c) (D.3.25(c));

(d) records of all visible emission notations from the baghouse/cyclone system as required in Condition D.1.12 (D.3.26); and

(e) records of all required baghouse parameters from the baghouse/cyclone system while the portable asphalt plant is in operation, as required in Condition D.1.13 (D.3.27).

All records required to be kept in this Condition shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Reporting Requirements: (326 IAC 7-2-1(c)(3)):

There are no reporting requirements in the permit pursuant to 326 IAC 7 because the owner or operator need only submit reports upon request of the Office of Air Quality.

The 326 IAC 7 SO2 emission limit, and its associated compliance determination, compliance monitoring, record keeping, and reporting requirements shall be included in their respective sections of both the asphalt plant and alternative operating scenarios, Sections D.1 and D.3, respectively.

2. Stationary Asphalt Plant:

The proposed co-location will not affect individual facility state requirements of the stationary plant.

Compliance Determination

1. Portable Asphalt Plant:

Compliance determination for the proposed portable asphalt plant shall consist of the following:

a. operation of the applicable control devices at all times the asphalt plant is in operation;

b. stack testing for PM and PM10 of the applicable asphalt plant emission units and associated control devices to demonstrate compliance with the NSPS (Subpart I), 326 IAC 6-3-2 PM limits,

and demonstrate that the fuel use limit combined with the use of emission controls achieves PM10 emissions (alone and when combined with the stationary plant), that are less than the applicable major source level of 99 tons per year; and

c. meeting the 326 IAC 7 compliance determination requirements.

The requirements of the control devices being operated at all times the associated emission units are in operation, are established with the following new conditions.

D.1.7 Particulate Matter (PM) and PM10

In order to comply with the emission limitations of Conditions C.1, C.2, D.1.2, D.1.3, and D.1.4 the portable asphalt plant baghouse/cyclone system shall be in operation at all times when the portable asphalt plant is in operation.

D.3.17 Particulate Matter (PM) and PM10

In order to comply with the emission limitations of Conditions C.1, C.2, D.3.7, D.3.8, and D.3.10, the portable asphalt plant baghouse shall be in operation at all times when the portable asphalt plant is in operation.

The stack testing requirements shall be amended to reflect more current language.

~~D.1.7 Particulate Matter~~

~~Between 60 and 180 days after issuance of this permit, the Permittee shall perform PM and PM_{10} testing utilizing methods per approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. PM_{10} includes filterable and condensible PM_{10}.~~

~~A test protocol shall be submitted to:~~

~~Indiana Department of Environmental Management~~
~~Compliance Data Section, Office of Air Management~~
~~100 North Senate Avenue, P. O. Box 6015~~
~~Indianapolis, Indiana 46206-6015~~

~~at least thirty-five (35) days before the intended test date. The Permittee shall develop and submit for approval with the protocol, standard operating procedures to be followed during sampling, handling, analysis, quality control, quality assurance, and data reporting.~~

D.1.8 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Conditions C.1, D.1.2, and D.1.4, the Permittee shall perform PM and PM-10 testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years or five (5) years after the most recent valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.3.18 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Conditions C.1, D.3.7, and D.3.10, the owner or operator shall perform PM and PM-10 testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years or five (5) years after the most recent valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

Since the revised testing requirement includes the five year testing requirement, the existing condition shall be removed.

~~D.1.12 Periodic Emissions Testing~~
~~That the Permittee shall perform particulate emissions testing on the portable drum mixer dryer and burner every 5 years in accordance with IDEM requirements.~~

Further, the NSPS testing and 326 IAC 7 compliance determination requirements shall be added as previously described.

The applicable portable plant compliance determination requirements shall be included in both Section D.1 and D.3.

2. Stationary Asphalt Plant:

The proposed co-location will not affect any of the stationary asphalt plant compliance determination requirements.

Compliance Monitoring

1. Portable Asphalt Plant:

Compliance monitoring for the proposed portable asphalt plant shall consist of the following:

a. daily and weekly visible emissions observations,
b. hourly monitoring of the baghouse operational parameters, and
c. meeting the 326 IAC 7 compliance monitoring requirements.

The visible emission observations and baghouse hourly monitoring requirements shall be as proposed in the original FESOP. The compliance monitoring requirements associated with 326 IAC 7 shall be included as previously described.

The compliance monitoring requirements shall be included in both Sections D.1 and D.3.

2. Stationary Asphalt Plant:

The proposed co-location will not affect any of the compliance monitoring requirements of the proposed stationary asphalt plant.

Record Keeping:

1. Portable Asphalt Plant:

Record keeping for the portable plant shall consist keeping records of the required fuel properties and the sampling and analysis test results to document compliance with the limits of 326 IAC 7, records of the types and amount of each fuel combusted to document compliance with the annual and monthly fuel use limits, records of all visible emission notations to document compliance with the PM, PM10, and opacity limits, and records of the hourly baghouse parameters to document that the control equipment is operating during operation and that the control device is operating at the parameters established in the compliance stack test that achieve compliance with the PM, PM10, and opacity limits.

The existing record keeping requirement shall be revised to reflect more current applicable permit language.

~~D.1.13 Operational Parameters~~
~~The Permittee shall maintain monthly records at the source of the following values:~~

~~(a) Amount of #2 fuel oil and natural gas used by the C1 burner (expressed in gallons and million cubic feet respectively);~~

~~(b) The records for fuel oil shall contain a minimum of the following:~~

~~(1) Average sulfur content of the #2 fuel oil used;~~

~~(2) Average higher heating value of the #2 fuel oil used;~~

~~(3) Average sulfur dioxide emission rate (expressed in pounds per million British thermal units);~~

D.1.14(D.3.29) Record Keeping Requirements
The owner or operator shall keep:

(a) either:

(1) a copy of the sampling and analysis test results as specified in Condition D.1.11(a)(1)(D.3.25(a)(1)),
(2) a copy of the sampling and analysis test results as specified in Condition D.1.11(a)(2)(D.3.25(a)(2)), or
(3) if the owner or operator utilizes vendor sampling and analysis data as provided for in Condition D.1.11(a)(3)(D.3.25(a)(3)), copies of the certifications required in Condition D.1.10(a)(3)(D.3.21(a)(3));

(b) records of the fuel oil properties required in Condition D.1.11(b)(D.3.25(b));

(c) records of the amount of fuel combusted, as required in Condition D.1.11(c)(D.3.25(c));

(d) records of all visible emission notations from the baghouse, cyclone, and scavenger duct system, as required in Condition D.1.12(D.3.26); and

(e) records of all required baghouse operational parameter recordings from the baghouse/cyclone system while the stationary asphalt plant is in operation, as required in Condition D.1.13(D.3.27).

All records required to be kept in this Condition shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

The portable plant record keeping requirements shall be included in both Sections D.1 and D.3.

(b) Stationary Asphalt Plant:

The proposed co-location will not affect any of the record keeping requirements of the proposed stationary asphalt plant.

Reporting:

1. Portable Asphalt Plant:

a. 326 IAC 7 Reporting Requirements:

The reporting requirements for the portable asphalt plant shall include quarterly reports of the monthly fuel use equivalents for the stationary plant.

No reporting of the records to be kept under 326 IAC 7 shall be required because pursuant to 326 IAC 7-2-1(c)(3), reports need only be submitted to the Office of Air Quality upon request.

b. The existing reporting requirement shall be updated as follows to reflect more current permit language.

~~D.1.14 Quarterly Reporting~~
~~Quarterly summary to document compliance with operation conditions number (D.1.1, D.1.2, and D.1.3) shall be submitted to the address listed in Section C - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) after the end of the quarter being reported. These reports shall include the number of gallons of #2 fuel oil used by the C1 burner each month, the fuel oil's average sulfur content for the quarter, and the millions of cubic feet of natural gas used by the C1 burner each month. All records and reports shall use calendar month averages.~~

D.1.15 Reporting Requirements
A quarterly summary of the information to document compliance with Condition D.1.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using reporting form 1 located at the end of this permit, or their equivalent. Said quarterly report shall be submitted within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The applicable portable plant reporting requirements shall be included in Section D.1 and D.3.

Portable Asphalt Plant Under Alternative Operating Scenario:

D.3.30 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.4 and D.3.10 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using reporting form 1 located at the end of this permit, or their equivalent. Said quarterly report shall be submitted within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

2. Stationary Asphalt Plant:

The proposed co-location will not affect any of the reporting requirements of the stationary asphalt

Conclusion

This portable asphalt plant shall be subject to the conditions of the attached proposed Significant Permit Revision (FESOP No.: F 027-14825-05023) and existing FESOP (027-7575-05023) .